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Published Quarterly at Chapel Hill, N. C.

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CAPITALISM IN RETROSPECT

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Taken at face value the word "capitalism" seems to refer to an economic system in which "capital" plays the title role. That is what it meant to Karl Marx and that is what it seems to mean to Mr. Eric Johnston, president of the United States Chamber of Commerce. As Mr. Johnston has recently declared, in an article the circulation of which must run to several millions,[1]

> I do not hesitate to say that the word upon which to fix the national mind at this time is simply, outrightly and frankly, *capitalism*. . . .We are too mealy-mouthed about the basic principle of our economic system. We have been intimidated by all the tirades against "bloated capitalists" and "swollen profits." We fear that the word capitalism is unpopular. So we take refuge in a nebulous phrase and talk about the "Free Enterprise System." And we even run to cover in the folds of the flag and talk about the "American Way of Life."

It seems likely that Marx would have agreed with all of this—that capitalism hides behind the flag, that capital is the basic institutional reality of which "swollen profits" and "bloated capitalists" are only end-products, and that businessmen are timid and mealy-mouthed. The extraordinary thing is that after so many years of sedulous avoidance the official spokesmen of capitalist business should now address themselves so squarely to this issue.

In recent years economists also have taken to using the naughty word. Comparative studies of capitalism and socialism with sidelights on totalitarianism and *Wehrwirtschaft* are now an academic commonplace. But unlike Mr. Johnston and Karl Marx, economists do not agree on what the word "capitalism" means or even whether it means anything. Their difficulty is not one of novelty. The taboo which excluded this word from the respectable literature of economics throughout the nineteenth century had its origin neither in confusion nor in prudence. Until recent years, at least, virtually all professional economists would have agreed with Mr. Johnston's pronouncement that "capitalism has been the greatest force that the world has ever known for increased production." But they had no use for any special name for the prevailing economic system, since they regarded it as a part of the order of nature. Like the Eskimos who

[1] "Your Stake in Capitalism," *Reader's Digest*, February, 1943, reprinted in full in full-page advertisements in newspapers throughout the country on Friday, February 19, 1943.

called themselves the human race they were content to identify the economic arrangements of western Europe and central North America as civilization.

It is one of the ironies of culture change that the need for such a word as "capitalism" should coincide with the disappearance of the happy certainties in which that word could have been used with confidence and general agreement. Obviously world events have had a great deal to do with this change of attitude. Economists may still argue, as some do, that every economy must conform to the basic principles of capitalism; but the United States Chamber of Commerce would scarcely be satisfied with a conception of capitalism which included the Soviet Union along with assorted fascist states. But the chief difficulty has been not so much the appearance of economies the gross structures of which differ markedly from those with which we are familiar as a growing realization that our own economy does not in fact work quite as we thought it did. Here too the point is not that it works badly, that it is subject to catastrophic depressions, or that "monopolistic competition" prevails over considerable areas. Our most serious trouble is conceptual. Quite apart from the defects of "the spotted actuality," we seem to have misconceived the nature and function of capital itself.

When Mr. Eric Johnston refers to capitalism as "the greatest force that the world has ever known for increased production" what he means is first, that increased production is a function of increased or improved industrial equipment, commonly known as capital; and second, that the increase or improvement of industrial equipment is the automatic and inevitable consequence of the accumulation of funds, also commonly and conveniently known as capital. The first of these two propositions is true, of course. The second is the Great Myth of capitalist culture, the belief by virtue of which—necessarily, perhaps—the community has been induced to endure the rigors of plutocracy. I do not mean to suggest that this myth, or any myth, is wholly devoid of truth, nor even to embark upon a discussion of the manifold qualifications and reservations with which economists have been obliged to hedge the proposition that the accumulation of funds means the increase of industrial equipment and therefore of the volume of production. But it must be noted, if only in passing, that economists who agree with their predecessors and with Mr. Johnston in attributing the achievements of the past five centuries to capitalism nevertheless have good reason to consider carefully just what are the determining features of the capitalistic system to which these very substantial achievements may therefore be attributed with reasonable assurance.

Just what is it the passing of which is most properly an occasion for regret? Economists are by no means generally agreed that the capitalist era has closed. As I have already noted, some would argue that the true essence of capitalism is eternal; indeed, scarcely anyone anticipates the disappearance of every feature of the familiar scene. But a note of foreboding, a sense, as Mr. Johnston phrases it, that "We stand at a solemn parting of the ways," does run through the greater part of present day discussion, and many economists now admit the possibility of more or less cataclysmic change. Two books have appeared only recently

and almost simultaneously which exemplify this state of mind both in their resemblances and in their differences.[2] Their superficial similarities are extraordinary, extending even to physical exteriors: almost simultaneous appearance, identical price, almost identical black bindings, and common evidences of the impact of war upon the publishing business.[3] Both writers are representatives of Germanic scholarship. Indeed, they were colleagues at Bonn before either took up residence in this country. Both seem to contemplate the eventual displacement of capitalism with regret. Both cherish the past, Professor von Beckerath with frank nostalgia and Professor Schumpeter less emotionally, perhaps, but still with the conviction that there were giants in those days. Neither rejects the conventional idea of capitalism, and neither finds it adequate and satisfactory.

But at this point the resemblance comes to an abrupt end. Two books more different in temper and significance would be hard to find. In the case of Professor Schumpeter a curious combination of circumstances produces an impression that is as unmerited as it is unfortunate. For one thing his prodigious erudition, his mastery of forensic strategy and tactics, and his amazing command of English idiom and literary skill in the larger sense, together produce an effect that is no doubt wholly unintended. The reader is not so much convinced as overwhelmed. However, this stylistic over-compensation, as it might be called, would be much less noticeable in a writer whose intellectual position was different. By a singular coincidence it happens that Professor Schumpeter's opinions differ from those of his various groups of readers in such a way as to convey an impression of consciously sophisticated superiority by which those of other ways of thinking are seemingly identified as credulous fools and dupes of vulgar superstition; and strange to say this is equally true of the partisans of capitalism, of socialism, and of democracy.

With regard to capitalism Professor Schumpeter occupies a unique position. Although, as I have said and as the many readers of his works do not need to be reminded, he does credit capitalism with performing the service of capital accumulation with which it is conventionally credited, he does not regard this as its most important function nor rest his case for capitalism upon this premise. His major premise is still that of his *Theory of Economic Development*, namely that the creative force which has provided the motive power of western civilization throughout modern times has been the genius, the initiative, and leadership of men of affairs. Since men of affairs achieve their predominance in the course of a social struggle which has the effect of a selective process it follows that the men of greatest genius to whom therefore the community owes the greatest debt are the men of large affairs. Even monopoly itself saves the community the wastes of predatory and cutthroat competition, while "equilibrium,

[2] *Capitalism, Socialism, and Democracy*, by Joseph A. Schumpeter, New York: Harper & Brothers, 1942, $3.50; and *In Defense of the West*, by Herbert von Beckerath, Durham: Duke University Press, 1942, $3.50.

[3] Duke seems to have suffered less than Harper in the matter of paper and also in the disorganization of its editorial staff as evidenced by the number of misprints.

even if eventually attained by an extremely costly method, no longer guarantees either full employment or maximum output. . .—and a shocking suspicion dawns upon us that big business may have had more to do with creating that standard of life (the modern workman's budget) than with keeping it down" (pp. 80 and 82). Thus Professor Schumpeter sets himself apart from all those who have naïvely supposed that the growth of monopoly represents a trend away from the *beau idéal* of capitalism. He also denies, with all the authority of his long study and distinguished contributions in this field, that the evidence of business cycles indicates any defect inherent in the mechanism of capitalism itself and even denies that unemployment is a major evil, since what makes it hurt is only the relatively low level of consumption of the masses by virtue of which they are unable to cope successfully with their periods of idleness. The latter is an indictment not of capitalism but only of the past in which capitalism had not yet raised the level of consumption to the point at which disemployment would cease to hurt. "Since it will be able to do so if it keeps up its past performance for another half century this indictment would in that case enter the limbo filled by the sorry specters of child labor and sixteen-hour working days and five persons living in one room which it is quite proper to emphasize when we are talking about the past social costs of capitalist achievement but which are not necessarily relevant to the balance of alternatives for the future" (p. 70).

But this does not mean that capitalism may be expected to go on to such triumphs. Having established that capitalism "has no kind of fault nor flaw," thereby dissociating himself from even its kindest critics, Professor Schumpeter goes on at once to dissociate himself also from those who are so naïve as to suppose that its continuance may therefore be expected. Capitalism, he thinks, cannot possibly survive, for it is prevented from doing so by its own success. In much the same way in which it destroyed the institutional framework of feudal society the capitalist process also undermines its own (p. 139), thereby producing a social atmosphere of growing hostility. For it "unavoidably attacks" the small producer and trader, the lower strata of capitalist industry. ("Here of course Marx scores" p. 140.) At the same time it brings about the decomposition even of such institutions as property and contract. "Dematerialized, defunctionalized and absentee ownership does not impress and call forth moral allegiance as the vital form of property did. Eventually there will be *nobody* left who really cares to stand for it—nobody within and nobody without the precincts of the big concerns" (p. 142). And so, "Faced by the increasing hostility of the environment and by the legislative, administrative and judicial practise born of that hostility, entrepreneurs and capitalists—in fact the whole stratum that accepts the bourgeois scheme of life—will eventually cease to function" (p. 156).

This resolution, as I have already indicated, brings Professor Schumpeter into rapport with Marx. But he is no vulgar partisan. On the contrary, his most acrid sarcasm is reserved for the true believers who imagine that Marx was right in everything, for the radicals who are "so fond of chivying the bourgeois that they cannot see anything. . . ," and for the "type of radical whose adverse judgment about capitalist civilization rests on nothing except stupidity, ignorance,

or irresponsibility, who is unable or unwilling to grasp the most obvious facts." There is no fool like a Marxist. "Modern economists with Marxist sympathies really should know better than to say. . ." etc., etc.

In the court that sits on theoretical technique, the verdict must be adverse. Adherence to an analytical apparatus that always had been inadequate and was in Marx's own day rapidly becoming obsolete; a long list of conclusions that do not follow or are downright wrong; mistakes which if corrected change essential inferences, sometimes into their opposites—all this can be rightfully charged against Marx, the theoretical technician (p. 43).

Professor Schumpeter is reasonably safe from the attentions of the Dies Committee. Nevertheless he honors Marx. For . . .

Through all that is faulty or even unscientific in his analysis runs a fundamental idea that is neither. . . .He was the first economist of top rank to see and teach systematically how economic theory may be turned into historical analysis and how the historical narrative may be turned into *histoire raisonnée*. (Loc. cit.).

It is as a fulfillment of this idea that Professor Schumpeter views the inevitable transition from capitalism to socialism, and this gives him an opportunity to dissociate himself still further both from Marxists and Rotarians. His socialism is no "paean on the miraculous glories of heaven, in which it would be easy to dispense altogether with capitalist tricks like cost rationality and in which comrades would solve all problems by helping themselves to the bounties pouring forth from social stores" (p. 173). Indeed, it is culturally indeterminate and is best described, perhaps,

by saying that the socialist management could steer a course approximating the long-run trend of output, thus developing a tendency which as we have seen is not foreign to big-business policy. And the whole of our argument might be put in a nutshell by saying that socialization means a stride beyond big business on the way that has been chalked out by it or, what amounts to the same thing, that socialist management may conceivably prove as superior to big-business capitalism as big-business capitalism has proved to be to the kind of competitive capitalism of which the English industry of a hundred years ago was the prototype (pp. 195, 6).

This passage probably comes as near to pleasing nobody as would be possible within such narrow limits of space. But as he elaborates the picture Professor Schumpeter is able to make it even more repellent by pointing out that it "raises the question of that Bureaucratization of Economic Life which constitutes the theme of so many anti-socialist homilies." Nevertheless he declares that he at least is able to face the prospect with equanimity.

I for one (he says) cannot visualize, in the conditions of modern society, a socialist organization in any form other than that of a huge and all-embracing bureaucratic apparatus. Every other possibility I can conceive would spell failure and breakdown. But surely this should not horrify anyone who realizes how far the bureaucratization of economic life—of life in general even—has gone already and who knows how to cut through the underbrush of phrases that has grown up around the subject (p. 206).

And lest the president and members of the Chamber of Commerce should hail him as a comrade he makes it clear that he has reference not only to Washington but quite as much to New York.

But democracy provides Professor Schumpeter with his supreme opportunity. Having argued that big-business is the finest flower of capitalism of which socialist bureaucracy is the inevitable seed, he goes on to prove that such an outcome is entirely consonant with the further and fuller realization of democracy. In doing so it is first necessary for him to show that democracy is no mystic hope or idealistic self-deception along Jeffersonian or Lincolnian lines. As he puts the case,

> It is no doubt possible to argue that given time the collective psyche will evolve opinions that not infrequently strike us as highly reasonable and even shrewd. History however consists of a succession of short-run situations that may alter the course of events for good. If all the people can in the short run be "fooled" step by step into something they do not really want, and if this is not an exceptional case which we could afford to neglect, then no amount of retrospective common sense will alter the fact that in reality they neither raise nor decide issues but that the issues that shape their fate are normally raised and decided for them. More than anyone else the lover of democracy has every reason to accept this fact and to clear his creed from the aspersion that it rests upon make-believe (p. 264).

The truth is that "democracy does not mean and cannot mean that the people actually rule in any obvious sense of the terms 'people' and 'rule.' Democracy means only that the people have the opportunity of accepting or refusing the men who are to rule them" p. 284–85). The criterion of the democratic method is, simply, "free competition among would-be leaders for the vote of the electorate," and is in essence "the rule of the politician." So conceived, democracy is not only compatible with socialism, it is its natural consequence.

Professor Schumpeter is well aware that his conception of democracy is likely to be no more palatable to democrats than his socialism is to socialists. As he remarks, "there will be a political profession" which may "evolve a political set, about the qualities of which it is idle to speculate," and he closes the book with a characteristic irony.

> It is only socialism in the sense defined in this book that is so predictable (he says). Nothing else is. In particular there is little reason to believe that this socialism will mean the advent of the civilization of which orthodox socialists dream. It is much more likely to present fascist features. That would be a strange answer to Marx's prayer. But history sometimes indulges in jokes of questionable taste.

But cynicism is not compelling proof of wisdom. Indeed, as I said at the outset what seems at times to be an affectation of superiority may be the inescapable consequence of a major premise to which one has become committed for quite different reasons. I have no idea what circumstances may have led to Professor Schumpeter's commitment, doubtless many years ago, to the belief that all the achievements of western civilization, cultural as well as material, even the rationality that is the distinguishing trait of modern mind, owe their existence not merely to the institutions but to the personal example, influence, and power of men of large affairs. There is no limit, short of literal divinity,

to his idolatry. Thus he has "no hesitation in saying that all logic is derived from the pattern of the economic decision or, to use a pet phrase of mine, that the economic pattern is the matrix of logic."

In this respect (he continues) it is highly significant that modern mathematico-experimental science developed, in the fifteenth, sixteenth and seventeenth centuries, not only along with the social process usually referred to as the Rise of Capitalism, but (as a manifestation of)...the spirit of rationalist individualism, the spirit generated by rising capitalism....Modern medicine and hygiene (are) by-products of the capitalist process just as is modern education.

There is capitalist art...Giotto—Masaccio—Vinci—Michelangelo—Greco...Delacroix and Ingres...Cézanne, van Gogh, Picasso...Matisse...The story of the capitalist novel (culminating in the Goncourt novel: 'documents written up') would illustrate still better....(pp. 122–26).

As Professor Schumpeter is well aware (see note 7 on page 125) this astonishing farrago, for which a duplicate could be found only in the wildest ravings of the callowest revolutionaries, is the postulate by which his entire position is determined. The fact that in its grotesque overemphasis on "the pattern of economic decision" and disregard of all the other factors of the cultural process such an opinion flouts not only the common sense of the community but also the entire product of historical scholarship in such fields as the history of science and the history of the various arts does not constitute a valid reason for setting it aside. Professor Schumpeter might conceivably be right where all others are wrong, and he does enjoy a certain measure of support from German economic historians, including Marx. But the situation is one in which he might reasonably have been expected to give serious attention to buttressing the foundations upon which his entire argument is built, and his failure to do so is therefore especially suggestive. It suggests that he is after all aware, perhaps "subconsciously," of the extreme precariousness of his position and that his apparent brusqueness toward the delusions from which others suffer may be a reflex of his own discomfort.

The outlines of Professor von Beckerath's conception of capitalism lack the sharp clarity which is the distinguishing mark of Professor Schumpeter's exposition. Perhaps this is due in part to the fact that Professor von Beckerath's concern extends beyond capitalism, and even beyond socialism and democracy, to embrace the whole of western culture. But there is also a significant difference of conception. More important than pecuniary calculation, in his view, are the social and political institutions which made capitalism possible and along with it much else that is even more precious, such as freedom and enlightenment, which he regards not as the fruits of capitalism but as joint products with capitalism of a common institutional *milieu*; and more important even than these institutional forms are the moral convictions and even the spiritual traditions by which, he feels, the character of a civilization is determined.

The present crisis, he therefore thinks, is more than the issue between alternative economic patterns. As he puts it, "Never has the danger to Western civilization arising from moral confusion and degeneracy been greater. What we are entering properly might be called the revolution of antimorality in an

environment of amorality" (p. 232). Thus Professor von Beckerath is an admirer not so much of capitalism as of the cultural unity which western civilization has enjoyed and in which capitalism has flourished along with better things in recent centuries, the relative amenity which capitalism has shared in the past with the political, moral, intellectual, and artistic life of the western world. In speaking of the dangers which are inherent in the present situation he sometimes uses language that reminds the reader of Professor Schumpeter's interpretations, for example his remark that "the decreasing willingness of society to cope with the shortcomings of the capitalist system" may be more dangerous even than the "disturbances" and "rigidities" of that system. But this does not mean that Professor von Beckerath denies the existence of any disturbances or rigidities, or that he acquits capitalism of all responsibility in the matter. The economic difficulties and political confusions of the present day are, in his view, genuine enough, and they are the consequences of defects inherent in the economic and political mechanism of the modern world. But what alarms him most is the spiritual bankruptcy which is revealed by the ideology and technique of both proletarian and fascist revolution. "The denial of the real importance of the supernatural in human life," he thinks, "the glorification of the mechanical, may prove to be tragic errors" (p. 270).

As this passage indicates, Professor von Beckerath considers technological development a disturbing influence, and so it is. Without doubt the "iron slaves" of "mechanized civilization" are indeed "monkey wrenches" in the machinery of the western world, as the title of Chapter III suggests. This raises a very important issue. Grant that science and technology are the chief disturbers of our peace. Grant that the confusion of moral values and disappearance of supernatural sanctions are chiefly attributable to that influence. Does it therefore follow that science and technology are the instruments of the devil? Professor von Beckerath does not say so, nor so far as I can judge does he even think so. But he does leave the issue unresolved, and this is the principal failure of an otherwise absorbing and thought-stimulating book.

Consider the moral and spiritual "verities" of Protestant-capitalist civilization, as Alexander Meiklejohn has recently called it. Obviously they were not identical with the verities of the medieval world, and Professor von Beckerath seems to share the common opinion that the change was for the better since it is the later and not the earlier verities for which he is solicitous. But to what was that change due? "The philosophy of enlightenment, utilitarianism, the increasing interest in science, and the advance of scientific technology"—surely these developments, which Professor von Beckerath lists as "powerful factors in the rise of the middle classes" (p. 89), give evidence of something more than Professor Schumpeter's pecuniary logic. Surely the intellectual process has a drive and a pattern of its own. As economists, "theoretical technicians" in Professor Schumpeter's phrase, we assume that the development of economic ideas is a reality. Surely the tools and instruments of western civilization are realities. Surely the intellectual and technical development of western civilization will survive institutional adjustments which after all may be no more painful than the transition from feudalism to Protestant-capitalist democracy.

Perhaps the concern which we now feel for the not-so-very ancient verities of the capitalist period bears a closer resemblance than we realize to the state of mind of the medieval schoolmen, and in two respects. For one thing, we are almost certainly wrong in thinking that the disappearance of our verities is the doom of truth and goodness. "Democracy," says Professor von Beckerath in a passage which Professor Schumpeter no doubt would dismiss as utterly naïve, "consists in keeping a way to the highest forms of spiritual experience open to everybody who is fit for it" (p. 240). Yes, it certainly does. But that is not all. Education is the dissemination of what is known, but it is also the effort and achievement of knowing more. In a still more important sense democracy is the political aspect of the self-education of a culture. That is the reality which Professor Schumpeter ignores when he sneers at Jefferson and Lincoln. History does indeed *contain* a succession of short-run situations, but to say that history *consists* of them alone is to render the history of science (including economics) utterly unintelligible. Jefferson was of course right in thinking that in the end "the people" are wiser than any single individual in just this sense: the wisdom of any single individual is limited to what is known and understood at some particular instant of time, but the "wisdom of the people" is a function of continuous and progressive development. I have just reread Henry Adams' poignant account, in the *Education*, of the death of his older sister. The great-granddaughter of John Adams died of tetanus, and my reflection is, what a fool she was not to have been born a century later! We know better now, and if anybody thinks that we can nevertheless be treated as such men as we were treated in the past, he is mistaken.

This does not tell us what the values of the future are to be. But it does indicate their source, and that is my second point. In crying, "Woe, woe!" we are closing our eyes to the source of our relief, just as the medieval schoolmen did. In a characteristic passage Professor Schumpeter praises the schoolmen for having the sense to curb the "rugged individualism of Galileo," since they "rightly sensed the spirit behind such exploits . . . the spirit generated by rising capitalism" (p. 124). It has always been my opinion that in "chivying" Galileo but leaving his telescope intact the schoolmen clearly revealed that they had no notion what it was all about, and that, it seems to me, is Professor Schumpeter's real failure. He completely misses the most important force in modern (or any) civilization. His is, after all, a perfect clinical picture of capitalist astigmatism. Mr. Eric Johnston and his kind exalt the accumulation of funds not only because they are (or propose to be) the masters of those funds but even more because their minds are fixed in "the pattern of economic decision." To minds so fixed, funds are the reality of which the "iron slaves" of industry are only the transient and ever-changing form. But they are wrong. Those machines are more than models for attractive institutional advertising; they are the ultimate reality of modern civilization. The pattern of decision may very likely change; but capitalist or socialist, the future economy will certainly be super-industrial. The machines are slaves, perhaps, as Professor von Beckerath has said; but they are genii-slaves of the lamp of science. If we rub the lamp a little harder, we may yet learn the answer to the institutional riddle.

THE FINAL CONSUMPTION OF COTTON

M. K. HORNE, JR.

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Students of the cotton economy have dealt chiefly with aspects of supply. Emphasis has been laid upon crop control, production methods, and the intermediate stages of distribution. The basic demand for cotton, which stems from its ultimate uses, has been comparatively unknown to economic research.

Is it realistic to hope that the total demand for cotton may be increased appreciably by conscious effort? The chief avenues for such effort are (1) control of consumer psychology, (2) strengthening of merchandising methods, (3) improvement of existing products, and (4) discovery of new uses.

The potential effect of such enterprise cannot be appraised without a broad statistical picture of the uses of cotton, organized in terms of the quantity of the raw fiber which reaches ultimate consumption through each use. There has been a remarkable scarcity of such information. When fabrics leave the textile mills and fan out toward the myriad of finishing and fabricating plants through which they take form as consumer articles, the quantities of cotton involved are obscured in statistical reports.

Frank A. McCord, in collaboration with the writer, has made a comprehensive study of statistical sources which give bases for estimates of the volume of cotton entering each final use. The fragmentary data thus obtained have been supplemented by contacts with 1,500 firms and individuals having first-hand knowledge of specific uses. The outcome is a publication, only recently released, which gives estimates of the volume of raw cotton required for consumer articles manufactured in the United States during the years 1937 and 1939.[1]

The study revealed 266 more or less homogeneous uses, each of which required as many as 100 bales of cotton per year. The 100 largest uses in 1939 are presented in Table I. Drastic shifts in consumption have subsequently been made as a consequence of the war, but the figures for 1939 provide a closer approach to a normal situation than later statistics would afford.

Some of the chief implications of these statistics will be discussed briefly in this paper. Against this statistical background, some broad conclusions will be drawn regarding the possibilities of change in the total demand for cotton and the principles which should characterize a conscious effort in that field. No attempt will be made here to analyze the international aspects of cotton consumption or the effect of the current upheavals incident to the war. Neither will discussion be given to the connection between expanded cotton consumption and the best interests of society as a whole.

I

Table I makes apparent the wide distribution of cotton uses. Automobile tires, with 8.7 per cent of all cotton consumption, form an exceptional instance

[1] M. K. Horne, Jr. and Frank A. McCord, *Cotton Counts Its Customers* (Memphis, National Cotton Council of America: 1942).

TABLE I

CONSUMPTION OF COTTON IN THE 100 LARGEST USES IN THE UNITED STATES: 1939

USE	(1) THOUSANDS OF 478-LB. NET WEIGHT BALES	(2) PER CENT OF TOTAL CONSUMPTION
GRAND TOTAL	7,216.6	100.0
INDUSTRIAL USES, Total	2,677.2	37.10
Automobile Tires	633.1	8.77
Bags	458.8	6.36
Cordage & Twine	357.3	4.95
Shoes	107.8	1.49
Medical Uses	87.5	1.21
Artificial Leather	81.2	1.13
Awnings	77.3	1.07
Automobiles, Other Than Tires	74.1	1.03
Duck Hose & Belting	60.8	.84
Tents	41.2	.57
Laundry Supplies	39.4	.55
Horse & Mule Harness	37.5	.52
Tarpaulins	32.3	.45
Sports Equipment	30.0	.42
Tapes & Bindings	25.5	.36
Airplanes	25.0	.35
Mattress Stuffing	25.0	.35
Bookbindings	22.8	.32
Meat Stockinettes	21.9	.30
Luggage	19.3	.27
Fish Nets	18.8	.26
Caskets	16.7	.23
Insulation	15.5	.21
Tobacco Cheesecloth	13.5	.19
Advertising Signs & Novelties	12.5	.17
Stage & Screen Equipment	12.5	.17
Filter Cloths	10.4	.14
Cotton Bale Covering	10.0	.14
Paper Felts	9.0	.12
Novelty Ribbons & Thread	6.8	.09
Zipper Tapes	6.0	.08
Brake Linings & Abrasives	5.0	.07
Flags	5.0	.07
Sails	5.0	.07
Lamp & Stove Wicking	4.3	.06
Wallpaper Backing	3.3	.05
Office Machine Ribbons	3.2	.04
All Other Industrial Uses	262.1	3.63

TABLE I—*Continued*

USE	(1) THOUSANDS OF 478-LB. NET WEIGHT BALES	(2) PER CENT OF TOTAL CONSUMPTION
HOUSEHOLD USES, Total	1,808.1	25.05
Sheets	433.1	6.00
Towels & Toweling	303.4	4.20
Blankets	180.4	2.50
Draperies & Upholstery	154.2	2.14
Rugs & Carpets	148.5	2.05
Curtains	130.3	1.81
Bedspreads	94.2	1.31
Pillow Cases	74.8	1.04
Bed Ticking	72.8	1.01
Oilcloth	62.5	.87
Window Shades	29.3	.41
Embroidered Scarfs	20.5	.28
Chairs, Hammocks & Swings	17.5	.24
Table Linen	15.8	.22
Mattress Covers	13.3	.18
Tapestries	13.2	.18
Mops & Dusters	12.1	.17
Dust & Wash Cloths	12.0	.17
Comforts & Quilts	10.8	.15
Furniture Slip Covers	5.4	.07
All Other Household Uses	4.0	.05
MEN'S & BOYS' APPAREL, Total	1,626.0	22.53
Shirts	463.5	6.42
Trousers	284.7	3.95
Overalls	232.0	3.21
Underwear	209.9	2.91
Hosiery	98.0	1.36
Nightwear	74.7	1.04
Gloves	61.8	.86
Suits	44.4	.62
Service Apparel	31.8	.44
Sweaters	31.3	.43
Coats & Jackets	28.2	.39
Handkerchiefs	16.4	.23
Hats & Caps	14.0	.19
Bathrobes	13.8	.19
Rainwear	11.6	.16
Neckties	3.2	.04
All Other Men's & Boys' Apparel	6.6	.09

TABLE 1—*Concluded*

USE	(1) THOUSANDS OF 478-LB. NET WEIGHT BALES	(2) PER CENT OF TOTAL CONSUMPTION
WOMEN'S & GIRLS' APPAREL, Total	598.2	8.29
Dresses	175.1	2.43
Underwear	104.1	1.44
Nightwear	57.8	.80
Uniforms	51.3	.71
Hosiery	46.1	.64
Sportswear	31.3	.44
Sanitary Napkins	29.0	.40
Handkerchiefs	17.1	.24
Sweaters	15.3	.21
Blouses	12.3	.17
Housecoats	10.9	.15
Bathrobes	9.1	.13
Separate Skirts	5.3	.07
Foundation Garments	5.2	.07
Handbags & Purses	3.8	.05
Rainwear	3.7	.05
Coats & Jackets	3.5	.05
Gloves	3.5	.05
All Other Women's & Girls' Apparel	13.7	.19
RETAIL FABRICS & THREADS	387.2	5.37
Piece Goods	331.7	4.60
Thread for Domestic Use	39.5	.55
Laces	14.2	.20
All Other Retail Fabrics & Threads	1.8	.02
SMALL CHILDREN'S APPAREL, Total	120.0	1.66
Dresses	37.1	.51
Playsuits	27.4	.38
Overalls	23.0	.32
Diapers	14.3	.20
Hosiery	12.4	.17
Sun Suits	3.1	.04
All Other Small Children's Apparel	2.7	.04

of concentration in a single use. Bed sheets, with 6.0 per cent, comprise another outstanding exception. Important concentrations are also found in men's shirts (6.4 per cent), bags (6.3 per cent), cordage and twine (4.9 per cent), piece goods (4.6 per cent), and towels and toweling (4.2 per cent); but these broad classifications are obviously limited in their homogeneity. In the study cited above, several subdivisions are given under each of these uses.

Even under the classifications here given, 40 per cent of all cotton consumed was applied to individual uses taking 2 per cent or less of the total, and 26 per

cent was applied to uses taking 1 per cent or less. Of the 100 uses here given, the median use consumed 24,015 bales, or the normal annual output of about 4,000 cotton farms. There were 14 uses taking from 50,000 to 100,000 bales, 19 uses taking from 25,000 to 50,000 bales, and 31 uses taking from 10,000 to 25,000 bales. The smallest of these uses consumed as much cotton as an average county in the Cotton Belt produces.

The diversity in the nature of cotton's uses is apparent from inspection of Table I. Cotton sprawls across the whole map of consumption. Every use is distinguished by an individual pattern of circumstances. There are differences in the economic and technical requirements of the fiber employed, in the character of the market served, in the kind and degree of processing which the fiber receives, and in the types of fabricating operations through which it passes.

In so large and diverse a distribution, the law of averages has considerable opportunity to operate. It is inevitable that the distribution contains numerous substantial uses which are subject to expansion or contraction as a result of scientific and promotional efforts by the cotton industry. The distribution is, of course, a proper source of some comfort to the cotton economy, for only a small fraction of the total consumption is exposed to depressive influences at any one point. Nevertheless, a net decline in cotton consumption can readily result from aggressive competition exerted upon it at many points and unaccompanied by an offsetting aggressiveness on the part of cotton.

The distribution of cotton's uses casts doubt upon the significance of sporadic or piece-meal programs of technical or market promotion. If, for example, a determined effort is successful in halting the replacement of cotton with rayon in a given field of consumption, the net effect is likely to be an intensification of competition from rayon at other points. Likewise, if cotton dislodges jute from a given market, will not the displaced jute reappear in intensified competition elsewhere? The advocates of concentration upon a few uses, or even a few methods of promotion, are lacking in perspective. Such enterprise may be more productive of conversation than of net results.

There is no simple or inexpensive way to produce a material net change in the total demand for cotton. If serious results are to be expected, the whole array of substantial uses must be the subject of coordinated effort, made with current knowledge of all the significant factors in each use. The specialized knowledge and skill required for such an effort are entirely outside the scope of small-scale enterprise. This fact, however, does not remove such effort from the realm of possibility, for the raw cotton industry, from farmer to spinner, is one of the largest financial interests dependent upon a single commodity in the United States.

II

A remarkable feature of the cotton use pattern is the relatively small importance of women's and girls' clothing, which accounted altogether for the consumption of only 598,200 bales in 1939. The entire field of women's and girls' apparel was smaller than automobile tire cord. It was only 37 per cent as large as the field of men's and boys' apparel. Dresses, the biggest item in the

group, ranked twelfth on the whole list of uses in Table I. Consumption by women and girls was thinly spread over a variety of uses. The arithmetic average of the quantities of cotton consumed in this group was 32,469 bales, compared with an average of 77,332 bales for the remaining uses.

In total fiber consumption, feminine apparel does not bulk so large as casual observers may suppose. Women tend to use lighter clothing and to give it less strenuous wear than men. Moreover, cotton's position in this field has been profoundly altered during the past two decades by competition from rayon. The progress of this aggressive fiber has been highly concentrated in female apparel. In recent years rayon has closely challenged cotton for first place in the volume of fiber consumed in this field. Cotton is superior to rayon in launderability, while rayon may be superior to cotton in draping qualities. Both launderability and draping qualities are within the scope of potential scientific control.

The smallness of the female apparel field suggests that rayon may make its new competition felt chiefly at other points in the future. Indeed the industry's advances are currently being felt by cotton in the largest of all its consumer outlets, automobile tire cord. Rayon tire cord, as such, has a reputed tendency to give better resistance than cotton cord to the heat generated by tire flexing. However, the individual cotton fiber is superior to the rayon filament in heat resistance. Scientific progress has been made toward transmitting this superiority from the cotton fiber to the finished cord; but thus far the effort has been insufficient to prevent rayon from getting into important tire cord markets formerly occupied by cotton.

Cotton's reputed price advantage over rayon is subject to severe qualifications. The finer and stronger cotton fabrics require long-staple fiber, carrying premiums in price. The spinning operation entails a fiber waste running, in the case of combed yarns, as high as 35 per cent of the total. In spun rayon, the uniformity of fiber length greatly reduces the spinning waste; while in filament rayon, the problem is obviated. At the yarn level of processing, cotton's price advantage often nears the vanishing point. The broad trend of rayon prices has been distinctly downward. Aside from average price comparisons, rayon has the advantage of extraordinary stability in price.

Rayon is produced by a small group of financially strong corporations capable of rugged competition. Realistically viewed, cotton's chances of forcing rayon into a net reduction of its outlets are remote. The industry has a large fixed investment, and it would pay a high price to prevent a net loss of markets. Cotton will do well if it can discourage further expansion of that investment. To do so, it must be willing to spend money liberally on scientific research and sales promotion, and it must distribute its expenditures strategically among all the fields of actual or potential competition with rayon.

III

Judged by the criterion of cotton consumption, the important uses tend to be those which are unspectacular. In Table I, 37 per cent of the total was in the miscellaneous group described, for lack of a better word, as "Industrial Uses".

Tire cord, bags, and cordage and twine consumed 20 per cent of the total, or 1,450,000 bales. Shoes consumed more cotton than men's hosiery, and twice as much as women's hosiery. Bandages and absorbent cotton were more important than handkerchiefs, table linen and embroidered scarfs combined. Awnings were as important as men's nightwear, and three-fourths as important as women's underwear. Horse and mule harness was more important than women's sportswear.

Another 25 per cent of the total was in the "Household Uses". Here the concentration within a small list of uses is noteworthy. Cotton articles used on beds consumed 879,500 bales. Other uses taking 736,360 bales were towels and toweling, draperies, upholstery, rugs, carpets, and curtains.

The remaining 38 per cent of all cotton consumption was in the "Apparel Uses". Within this group the plain, coarse items were dominant. Men's overalls and coveralls were ahead of women's dresses. Women's dresses costing $2.00 or more used only 6.3 per cent as much cotton as those costing less than $2.00.[2] In the leading apparel use, men's shirts, 26.7 per cent of the total were work shirts, and 15.5 per cent were polo shirts.[3] In men's underwear, 41.9 per cent of the total consisted of one-piece knitted union suits.[4]

The use distribution of cotton exposes the fallacy of the argument that the price of cotton has little influence upon the quantity consumed. This contention, which is quite widely held, results from reasoning in which undue weight is given to the light items of apparel containing only two to ten cents' worth of cotton per dollar of retail value. In the total consumption of cotton, the price of the fiber is obviously a cost factor of primary importance. To compete effectively in the fields of greatest consumption, a fiber must meet severe tests as to price.

Paper, which is distinctly cheaper than spun fibers, is rapidly broadening its applications through technical improvements. This material has made outstanding progress in overcoming the handicap of low strength. Today it is striking hard at markets in which the volume of spun fiber consumption is high, such as bags, towels, twine, and upholstery. Paper, like most rayon, is made by means of technical processes which are subject to control and continued improvement, from a cellulose raw material which is cheaper than cotton.

The aggressiveness of rayon and paper, and the potential competition of the newer synthetic fibers, are sufficient in total effect to give cotton grave concern. These materials are striking cotton's markets at vital spots. Table I contains almost no substantial cotton uses which are beyond the potential reach of rayon or paper if their technical advances continue. Many of those advances are made possible by the flexibility which permits, at will, control and modification of the materials to meet consumer demands or industrial requirements.

In inter-fiber competition, cotton is analogous to an old nation which has grown accustomed to ruling most of the world without serious rivalry. The

[2] *Ibid.*, p. 21.
[3] *Ibid.*, p. 19.
[4] *Ibid.*, p. 20.

quantity of cotton consumed in this country exceeds that of jute, sisal, wool, rayon, silk and linen combined. In this situation, cotton logically has more to lose than to gain. If cotton offers little scientific and merchandising resistance to the rising challenge of other fibers, the full extent of its possible losses is appalling.

On the side of possible gains for cotton, the biggest fields of inter-fiber competition are in bags, cordage and twine, where the quantity of jute, sisal, henequen and other imported fibers consumed in 1939 was at least twice as great as the 816,100 bales of cotton consumed. In this country the use of these imported fibers in bags, cordage and twine exceeded the consumption of wool, rayon, silk and linen in all uses. Price, tensile strength, and other technical qualities are the chief elements of competition in the bag and cordage markets.

Next in point of volume are the wool consumed in rugs, men's suits, and overcoats, and the rayon consumed in female apparel. The seriousness of this competition is apparent. Yet these and all other fields of possible gain through inter-fiber competition should be measured and analyzed.

IV

The competitive forces influencing cotton consumption are classifiable into three divisions or areas. The first is the area of inter-fiber competition, in which one fiber strives against another for acceptance in the manufacture of established products. This is the area which affords cotton its greatest and most immediate source of danger, if not of opportunity; and it is the area to which the foregoing comments chiefly pertain. Both scientific research and advertising appeals are important instruments of competition in this field.

The second area is that in which non-fibrous products come into competition with cotton products for the performance of an established function. It embraces, for example, the substitution of Venetian blinds for window shades. Conversely, it embraces the use of cotton coverings to preserve rubber tires, and the substitution of treated cotton bags for metal containers. This area of competition is a special domain of scientific research, though advertising and sales promotion are important auxiliary weapons.

The third area is that in which an effort is made to induce the buying public to purchase more cotton products regardless of the source from which the spending power is attracted. In this field it is obvious that, unless the price of cotton products is reduced or the purchasing power of consumers is increased, an expanded consumption of cotton products must be accompanied by the withholding of spending power from other goods or services, or from savings. A fundamental change in the distribution of the consumer dollar must be effected. The logical weapons of competition in this field are advertising and publicity campaigns.

Here the distribution of cotton's uses requires further consideration. Cotton is so widely spread throughout the pattern of consumption, that increased cotton purchases at one point are likely to mean reduced cotton purchases at another point. The cotton industry must therefore be circumspect as to the source of

the spending power attracted to cotton articles. If money is withheld from automobile tires and spent on clothing, net cotton consumption may be reduced; there is as much cotton in a $10.00 passenger tire as in six dress shirts. If a housewife spends $2.00 on a dress instead of a mattress pad, she consumes three-quarters of a pound of cotton instead of four pounds. If she spends $1.00 on a slip instead of on the average window shade, her net cotton consumption is reduced. There is as much cotton in the bag on a $1.00 purchase of sugar as in a $1.00 pair of cotton hose or in two 50 cent brassieres.

The farm value of the cotton which reaches final consumption in the United States is normally about one-half of one per cent of the national income. In extreme cases, the value of the cotton in a "cotton article" is no more than this percentage of its retail price. In such cases, the net gain in cotton consumption would be nil if purchases of the "cotton articles" were expanded with funds withdrawn from a representative cross section of all consumer expenditures on goods, services, and savings.

Efforts to produce a material net expansion in cotton consumption through shifts in consumer expenditure may achieve some effectiveness if the efforts are selectively placed among the most promising uses. In the choice of uses, emphasis should be laid upon those in which the ratio of raw cotton value to total value is high. Otherwise, the net effect of the shift in purchases may be small in terms of cotton consumption. Moreover, the cost of selling a given quantity of cotton through articles having a high ratio of cotton value to total value should be relatively small, for the other elements of value which must be carried into consumption along with the cotton are relatively small. If only two cents' worth of cotton is embodied in a $1.00 article, a $1.00 sales resistance must be overcome in order to make a two cent sale of cotton; whereas, if fifty cents' worth of cotton is embodied in a $1.00 article, twenty-five times as much cotton may be sold by overcoming the same amount of sales resistance.

The additional factors to consider in the selection of uses for sales promotion are many and complex. It naturally appears wise to emphasize uses in which cotton holds a dominant position in inter-fiber competition; otherwise the fruits of the effort must be divided. The elasticity of demand in the various uses should be analyzed. Study should be made of potential expansion in fiber use not only at the retail level, but at various stages of manufacture.

V

Many agencies are now engaged in scientific research or sales promotion designed to increase the consumption of cotton. Of outstanding importance is the Southern Regional Research Laboratory of the U. S. Bureau of Agricultural Chemistry & Engineering. This establishment operates on an annual budget of approximately $750,000 for scientific research devoted chiefly to cotton and cottonseed. The Texas Cotton Research Institute, the National Cotton Council, The Textile Foundation, the Cotton-Textile Institute, and a number of educational and industrial agencies have scientific research projects on cotton. The National Cotton Council and the Cotton-Textile Institute are spending

approximately $250,000 per year in joint advertising and publicity enterprises. If research and sales promotion hold a genuine possibility of expanding the total market for a billion dollar cotton crop, the present scale of operations is quite modest.

From examination of the cotton use pattern as a whole, good evidence appears that the total demand for cotton is subject to substantial change through deliberate effort in the form of scientific research and sales promotion. Such effort can be significant both in expanding the uses of cotton and in resisting the loss of uses.

There also is good evidence that a vast amount of effort could easily be wasted. In the light of the entire use pattern of cotton, it would appear absurd to work diligently upon one segment of the pattern without thought for the economic repercussions upon other segments. Large expenditures made in offering resistance to a competing fiber in one use are wasted if that fiber can find its way into another use in which the resistance is not so severe. All effort should be weighed in terms of its net effect upon cotton consumption. There should be a balanced program of activity throughout the whole list of significant uses, with expenditures upon each being gauged by the relative intensity of the need.

The lack of a general strategy embodying this principle is the cardinal weakness of the present efforts to expand cotton consumption. The necessary strategy cannot be developed without full knowledge of the market conditions in each use.

At present the essential statistical information to support a sound strategy does not exist. There are no current statistics comparable with those presented in Table I. Neither are there current statistics on the use destinations of competing fibers. There is no individual or agency, certainly none friendly to cotton, which has at its command a record of the monthly, quarterly or annual variations in fiber consumption in each of the significant uses. In this field of activity, sporadic observations by untrained investigators can be worse than nothing. Cotton has been shooting in the dark.

The needed figures on current consumption trends could be developed through a sustained program of statistical analysis, based upon Federal and private reports, and thoroughly supported by first-hand investigation. The usefulness of Federal statistical reports for this purpose might well be improved.

An essential of sound strategy is intimate current knowledge of supply and demand factors in each significant use. What fiber qualities are important? What technical developments are needed? What kinds of market resistance are being encountered? What merchandising developments are in progress? What fiber competition is in prospect? What changes in the size and method of industrial production are being made? What new opportunities are evolving? For every use of cotton, these questions imply the need for sustained, expert investigation, conducted throughout an adequate sample of the market. Only in the light of authentic answers can the cotton industry decide how best to spend its energies in sales promotion and scientific research.

The task of securing information to support a sound strategy is well within

the realm of possible achievement. It would require a considerable staff of specialists in technical subjects, but the total cost would be small in comparison with the markets at stake. A more serious obstacle is the fact that it might be difficult to enlist popular support for a program based on sound strategy. The correct approach is essentially scientific and unspectacular; yet any large-scale program of action must be popularized among the thousands of growers and processors who, by one method or another, have to support it. From the standpoint of winning popular support, there is further difficulty in the fact that any program, sound or unsound, might fail to increase the total market for cotton in the face of competition from other cheap, aggressive fibers. Unless the price of cotton goes down or consumer income rises, it is more than possible that the true measure of success will be how well a net decline in the consumption of cotton is resisted.

THE NEGRO AND THE UNITED MINE WORKERS OF AMERICA[1]

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The bituminous coal industry has served as a laboratory for the development of many trade union policies. Of considerable importance is the manner in which the United Mine Workers has met the problem posed by the presence of large numbers of both white and Negro workers in the coal industry.[2] The "miners' formula" for resolving this question has been adopted by many of the CIO unions, which it helped to bring into existence, and in which the influence of the experiences of collective bargaining in the coal industry is still strong, although the UMW has now dissociated itself from the CIO.

This article discusses the effects of the UMW's racial policies on the welfare of Negro miners, with special reference to their employment opportunities.[3] Before turning to the main topic, however, it will be necessary to examine briefly the trend of employment and the racial-occupational pattern in the industry.

I

Tables I and II show the number of workers attached to the industry, and the proportional strength of colored miners, in the country as a whole, and in the coal producing states of the Southern Appalachian region, for the years 1890–1940, as reported by the United States Decennial Census.

The data for 1890 and 1900 cannot, of course, be strictly compared with those of the four succeeding census years, as they include metal miners, and in the case of 1900, quarrymen as well. But since coal is the predominant mineral produced in all these states, these figures do convey the idea of the rapid increase in the number of coal miners employed during the two decades before 1910.

Taking first the figures for the entire country, both the absolute number of miners and the proportion of Negroes showed marked increases during the first decade after 1910. Most striking, however, is the fact that between 1920 and 1930, the number of Negro miners rose by 5 per cent in the face of a 14 per cent decrease in total employment in the industry; and then, in the next ten years, the Negroes' gains were more than wiped out: the total number of coal miners decreased by 16 per cent, whereas the number of Negroes decreased by 33 per cent. The circumstances under which these gains and losses of colored miners took place will be described in detail below.[4]

[1] I am happy to acknowledge valuable assistance from an unpublished manuscript by Dr. P. H. Norgren, and from suggestions by Professors W. H. McPherson and S. H. Slichter, and by Dr. J. T. Dunlop.

[2] Only bituminous coal mining will be considered in this paper. There have never been more than a few score Negroes in the anthracite mining region of Pennsylvania. The terms "coal mining" and "bituminous coal mining" will be used interchangeably hereafter.

[3] In a subsequent article, the attempts of the United Steel Workers to adapt the "miners' formula" to the Birmingham, Ala., steel industry will be discussed.

[4] See below, pp. 315–18.

Turning next to the data for the individual states, we find that in 1940, approximately ninety per cent of all the Negroes in the industry were located in

TABLE I

Total Workers, Number and Percentage of Negroes in the Coal Industry for the United States and for the Principal Coal Producing States of the Southern Appalachian Region 1890–1910

	1890*			1900†			1910		
	All workers	Negroes	% negro	All workers	Negroes	% negro	All workers	Negroes	% negro
Total United States	‡	‡	‡	‡	‡	‡	644,500	40,584	6.3
Total So. Appalachian	31,475	9,148	29.1	66,253	22,304	33.7	112,358	29,642	26.4
Alabama	7,966	3,687	46.3	17,898	9,735	54.3	20,779	11,189	53.8
Kentucky	5,091	976	19.2	9,299	2,206	23.7	18,310	3,888	21.3
Tennessee	4,889	769	15.7	10,890	3,092	28.4	11,094	1,609	14.5
Virginia	3,924	1,700	43.3	7,369	2,651	35.9	7,291	1,719	23.6
West Virginia	9,605	2,016	21.0	20,797	4,620	22.2	54,884	11,237	20.5

Source: U. S. Decennial Census of Occupations 1890–1910.

* Includes all miners.

† Includes all miners and quarrymen.

‡ Total U. S. figures would be without meaning because of inclusion of metal miners and quarrymen.

TABLE II

Total Workers, Number and Percentage of Negroes in the Coal Industry for the United States and for the Principal Coal Producing States of the Southern Appalachian Region 1920–1940

	1920			1930			1940*		
	All workers	Negroes	% negro	All workers	Negroes	% negro	All workers	Negroes	% negro
Total United States	733,936	54,597	7.5	621,661	57,291	9.2	519,420	38,560	7.4
Total So. Appalachian	182,845	42,666	23.3	197,162	44,266	22.5	214,253	34,793	16.0
Alabama	26,204	14,097	53,8	23,956	12,742	53.2	23,022	9,605	41.8
Kentucky	44,269	7,407	16.7	54,307	7,346	13.3	54,676	5,474	10.0
Tennessee	12,226	913	7.5	8,765	578	6.6	9,534	168	1.8
Virginia	12,418	2,450	19.8	12,629	1,511	12.0	20,086	1,190	5.9
West Virginia	87,728	17,799	20.3	97,505	22,089	22.7	106,935	18,356	17.2

Source: U. S. Decennial Census of Occupation, 1920–1940.

* Before 1940, the figures are those "gainfully occupied," i.e., attached to the industry. The 1940 figures are those actually employed. But the difference between these terms is not substantial. It is highly probable that most people in 1930 reported not their *usual* status, but their *actual* status at the time of enumeration, and the latter is just the point stressed by the 1940 census.

the five southern and border states of Alabama, Kentucky, Tennessee, Virginia, and West Virginia, the so-called Southern Appalachian region, where 16 per cent

of the workers were colored. In no other state did Negroes comprise as much as 3 per cent of the total number of coal miners.

In three Southern Appalachian states—Kentucky, Tennessee, and Virginia—the percentage of Negroes declined by approximately one-half between 1910 and 1930. In Alabama during this period, the proportion of Negro miners remained quite stable. In West Virginia, however, the trend of Negro employment was quite different. There the proportion of Negroes remained constant from 1910 to 1920, but during the next ten years almost one-half of the new job opportunities created by the expansion of the industry went to Negro miners despite the fact that they comprised but one-fifth of the labor force in the state in 1920. It was in West Virginia, then, that the aforementioned rise in Negro employment was concentrated, a gain which was large enough to outweigh significant losses in three other southern states.

Between 1930 and 1940, the proportion of Negro miners in each Southern Appalachian state declined sharply, despite the fact that employment in that region tho not in the total industry took a turn for the better. The downward trend, observed since 1910 in Kentucky, Tennessee, and Virginia, continued at an accelerated rate; for the first time since 1890, the proportion of Negroes in Alabama mines fell below 50 per cent; and in West Virginia, the gains of the Negroes during the 1920's were more than swept away.

II

The causes of these shifts in the racial-employment pattern are found, first, in the comparatively late exploitation of the southern coal fields and their subsequent rapid development, and second, in the displacement of men by machines. Both are inextricably entwined with the story of collective bargaining in the industry.

Because of their greater distance from the centers of coal consumption, and because of inferior transportation facilities, the rich coal deposits of West Virginia and Kentucky were not exploited on a large scale before 1900. Since then, however, they have been developed at a rapid rate; nor is this difficult to explain. The coal seams of these states are unusually thick and contain an exceptionally high grade coal. But most important, the southern coal industry was from its inception, and with a few years excepted, for nearly forty years thereafter, strictly non-union; whereas the central competitive field, composed of the mine fields of Illinois, Indiana, Ohio, and Pennsylvania, was to a large extent organized as early as 1900. Since labor costs constitute the principal element in total costs of production, the non-union coal operators in the southern fields were able to encroach steadily on the markets of the union employers in the North by paying lower wages than the union scale.

The gradual infringement of the southern coal industry upon that of the North was noticeable even before the first World War, but because of the expanding market and a still favorable freight rate structure[5], the northern

[5] For an analysis of the effect of freight rate structure on coal production and mine location, see Glen L. Parker, *The Coal Industry* (Washington: American Council on Public Affairs, 1940), pp. 43–50.

operators were able to market increased quantities of coal until 1920. After that date, however, both of these favorable factors were lost to them. In addition, they became involved in a series of costly strikes and lockouts with the United Mine Workers, mainly over the issue of whether wage rates should be reduced. Although the UMW was able to maintain the wage structure, one group of operators after another went non-union until 1927 when the entire collective bargaining system in the central competitive field collapsed.

The consequences of these events were that production in the Southern Appalachian region increased as fast as that in the North fell off, until in 1927 the former area was producing as much as the latter. After the collapse of collective bargaining in that year, the northern operators succeeded in regaining a slight supremacy by drastic wage and price reductions, and since then they have been able to maintain their top position, either by further wage slashes, or since 1933, because of government stabilization of the industry.[6]

The sharp gain of the Southern Appalachian field, particularly West Virginia, at the expense of the northern coal-producing states during the twenties accounts for the already observed fact that Negro coal miners were able to increase their share of employment between 1920 and 1930 despite the fact that the number of white workers decreased by nearly one-sixth. Of special interest is the fact that in West Virginia, the state in which all the employment gains of colored miners were made during this decade, the coal operators imported Negro labor primarily for strikebreaking and anti-union purposes. But in Kentucky, Tennessee, and Virginia, the coal operators found the white "mountaineers" and recent immigrants from southeastern Europe less likely to catch the union contagion, and consequently the number of white employees was increased at the expense of the Negroes in these three states.[7]

III

The decline in importance of Negroes in the coal industry since 1930 is attributable primarily to the displacement of men by machines. To understand this clearly, it is necessary to discuss briefly the racial-occupational pattern of the industry.

The range of occupations in coal mining is comparatively narrow. Except for a few maintenance men, there are in the average coal mine no jobs which require more than a modicum of skill. Over 50 per cent of the personnel consist of hand coal loaders, and most of the other workers are machine operators of one sort or another. While the former are paid by the piece, and the latter by the day, there is seldom any great difference in the earnings of the two groups.

[6] For a more complete account of the North-South competition, see F. E. Berquist *et al.*, *Economic Survey of the Coal Industry under Free Competition and Code Regulation* (Mimeographed study of the National Recovery Administration, Work Materials No. 69), pp. 13–78. My discussion in sections II and III is especially indebted to the unpublished work of Dr. P. H. Norgren.

[7] S. D. Spero and A. L. Harris, *The Black Worker* (New York: Columbia Univ. Press, 1931), pp. 213–214, 217–225, 374–375.

Segregation either by occupation or by place of work, unlike most factory industries in the South, is conspicuous by its absence in the coal mines. In mines where the two races are employed, they invariably work side by side and at the same occupations. Negroes are used in all capacities, but their share of work varies from occupation to occupation. Thus in a sample study of some twenty southern West Virginia mines in 1932, it was found that only 2 per cent of the Negroes were undercutting-machine operators as against 6 per cent of the white. In all the "indirect labor" jobs, except that of brakemen (one of the most dangerous jobs in a coal mine), and in all jobs carrying a supervisory function, the whites were more heavily represented than the Negroes. On the other hand, however, 77 per cent of the colored miners were found to be hand loaders, but only 60 per cent of the whites engaged in this occupation.[8] The field work of the present writer, carried on in southern West Virginia and Alabama during the summers of 1940 and 1941, confirms the general tenor of these earlier findings.[9]

Despite this uneven distribution of jobs between the two races, the fact remains that the outstanding characteristic of the southern coal industry from a racial-occupational standpoint, is the comparatively high degree of mixing of the races. Besides, since the earnings of piece and day workers are usually about equal, no wage differential based on race is present in the industry.[10]

On the other hand, the relatively heavy concentration of Negroes in hand loading jobs has made them especially vulnerable to technological displacement. Since the first World War, mechanical loaders of various types have been put on the market, which perform these operations, and in so doing, displace a substantial number of hand laborers. Before 1933, mechanization of loading operations was confined almost without exception to the high wage North. Together with the competition of other fuels, and the introduction of more efficient

[8] J. T. Laing, *The Negro Miner in West Virginia* (unpublished Ph.D. thesis, Ohio State University, 1933), pp. 188–249.

[9] Dr. Laing maintains that the relatively heavy concentration of Negroes in hand loading jobs is, to a large extent, a matter of choice. Negro miners, he claims, prefer piece work jobs because such work allows them a relatively high degree of freedom from supervision and permits them to take an occasional day off if they so desire. A like conclusion was reached by the author of another study, which was based on a survey of some fifty mining communities in Kentucky and West Virginia, conducted at approximately the same time as Dr. Laing's investigation. [Homer L. Morris, *The Plight of the Coal Miner*, (Philadelphia: University of Pennsylvania Press, 1934), pp. 66–67.]

It should also be emphasized, however, that hand loading requires the greatest amount of physical effort of any of the occupations in coal mining. When one considers that it is a general custom to assign such tasks to Negroes, it seems likely that other factors besides the desires of the colored workers are involved. E.g., it has long been customary to assign machine jobs to whites, and leave the hand loading for Negroes, and usually the preferences considered, have been those of the white workers, and not of the Negroes. (See below, pp. 324–26.)

[10] The fact that in the past the earnings of Negroes have been on the average below those of whites has been due to the concentration of Negroes in the low wage, non-union areas of the South.

methods of fuel utilization, it contributed to the already noted 15 per cent decline in employment in the industry.[11] With the advent of collective bargaining and high wages after 1933, the introduction of loading machines went forward at a rapid rate in the South. It is to this fact that the sharp decline of Negro miners in the industry is mainly attributable. For Negroes not only suffered heavily by reason of being concentrated in the occupation which the machines eliminate, but they also failed to receive a proportionate share of employment as machine operators. Since the causes of this last event are explicable only if one understands the Negro-union relationships in the industry, further discussion of the subject will be postponed until we have examined the racial policies of the United Mine Workers.[12]

IV

The United Mine Workers of America was founded in 1890 by a merger of the Progressive Miners' Union with Knights of Labor District Assembly No. 135.[13] From its beginning the UMW was organized on an industrial basis, taking into membership all those who worked "in and around the mines", regardless of race, color, creed, or nationality. To what was left of the Knights of Labor's "take in anybody" philosophy was added the special feeling of unity among all mine workers engendered by the isolation of the mining towns. Usually cut off from direct communication with the outside world, these cummunities rarely developed more than two classes: the "company," with its manager, mine guards, and all-pervasive authority on the one hand, and the workers, whether machinists, coal loaders, or whatnot, on the other.[14] The workers' solidarity was also strengthened by the narrow wage differential between the highest and lowest paid. Race and nationality differences remained the primary disturbing element, and this, as we shall see, the UMW leaders strenuously combated.

In the early years of its existence, the UMW was quite successful in organizing the miners of Illinois, Indiana, Ohio, and to a lesser extent, Pennsylvania—the central competitive field—and the small southwestern area, composed of Arkansas, Kansas, and Oklahoma. Attempting to forestall unionism, the coal companies of these areas frequently staffed their mines with "judicious mixtures" of native whites, recent immigrants, and Negroes. As early as 1880, and as late as 1927, southern Negroes, fresh from the cotton fields and totally ignorant of industrial conflict, were imported as strikebreakers. Although this resulted in serious racial outbreaks on several occasions, the UMW officials did not attempt to fight the operators by drawing the color line. Had they done so, they would undoubtedly have encouraged the importation of more colored strikebreakers. Instead, they encouraged the Negroes to join the union and guaran-

[11] See above, pp. 313, 315–16. For an authoritative discussion of mechanization and its effects, see W. E. Hotchkiss, *et al.*, *Mechanization, Employment and Output per Man in Bituminous-Coal Mining*, (Philadelphia: WPA, National Research Project, etc., 1939).
[12] See below, pp. 324 *et seq.*
[13] Herbert Harris, *American Labor* (New Haven: Yale University Press, 1937), p. 113.
[14] *Ibid.*, pp. 113–114.

teed them full privileges of membership. Racial friction and discrimination in the central competitive and southwestern fields did not vanish, to be sure. But the methods used by the UMW to combat the importation of Negro strikebreakers kept it at a minimum.[15]

In the Southern Appalachian region, where Negro labor was used from the beginning of mining operations, the UMW found the going much rougher, as its experiences in Alabama and West Virginia illustrate.[16]

Labor organization among Alabama coal miners dates as far back as 1883; and a decade later the United Mine Workers first entered the region.[17] Progress was at first slow, but by 1902, the union had entered into compacts with most of the operators in the region.[18] Two years later, however, some of the larger producers denounced the agreement, and despite a series of strikes, the Alabama miners' unions were completely destroyed by 1908.[19]

The next attempt at organization of Alabama came some ten years later. Aided by the Federal government's World War I labor policy, which officially approved of collective bargaining, the UMW succeeded in organizing several thousand miners—again, as previously, mainly Negroes. Although the operators refused to recognize the union, they did accept successive arbitration awards by Federal officials, and thus stoppages during the war were prevented. In the fall and winter of 1920–21, however, the UMW was defeated after a bitter strike, and coal unionism disappeared from Alabama till 1933.[20]

In both the 1908 and the 1920–21 strike, the employers and their supporters used the race issue with telling effect. In the former year, the tent colony in which the strikers lived after they had been evicted from the company-owned houses, was burned to the ground in order to prevent the "mobilization of Negroes in union camps." In addition a committee of citizens threatened a race riot unless the president of the UMW ordered the miners to return to work. The UMW executive was informed that "no matter how meritorious the union cause, the people of Alabama would never tolerate the organization and striking of Negroes along with white men." The union officials then proposed to transfer all of the Negroes out of the state and make the strike a "white man's affair." But the governor of Alabama stated that he "would not permit white men to

[15] Spero and Harris, *op. cit.*, pp. 210–213, 355–357; and F. L. Ryan, *The Rehabilitation of Oklahoma Coal Mining Communities* (Norman, Okla.: University of Oklahoma Press, 1935), pp. 39, 46–49, 64–68, 89, 98–99.

[16] A significant exception was in western Kentucky, where the UMW had agreements from 1898 to 1921. Since, however, this region is contiguous to Indiana and Illinois, it was practically a part of the central competitive field, although never actually so.

[17] *Alabama News-Digest*, January 25,1940. A special supplement to this issue of the paper of the Birmingham, Ala., CIO, contains a complete history of the UMW in Alabama. See also Spero and Harris, *op. cit.*, p. 357.

[18] *Alabama News-Digest*, *loc. cit.*

[19] *Ibid.* Among the signatories to this agreement was the Sloss-Sheffield Company, whose president testified that he dealt with a grievance committee composed of "two white men and a colored brother. He [the Negro] is not expected to say much, but he is on the committee."—U. S. Congress, *Report of the Industrial Commission* (1901), XIII, 508.

[20] *Alabama News-Digest*, *loc. cit.*; Spero and Harris, *op. cit.*, pp. 358–362.

live in camps under the jurisdiction" of the UMW. The apparent hopelessness of the struggle, plus the fact that there had occurred no little violence and bloodshed, undoubtedly induced the miners' president to terminate the strike.[21]

In the 1920–21 struggle, the race issue was given no less prominence. Over 76 per cent of the strikers were Negroes. To this the operators declared the success of the strike to be due, because "southern Negroes . . . are easily misled, especially when given a prominent and official place in an organization in which both races are members." A citizens committee stressed the fact that *northern* Negro and white organizers spoke from the same platform. And the strike was featured by violence as primitive and brutal as in any of the earlier coal mining tragedies of the North and West, with Negroes being especially singled out for savage treatment.[22]

While there is every likelihood that racial friction would not have been absent in an atmosphere so tense as that of an Alabama coal strike, it is clear that the coal operators and their allies were responsible for bringing the question of color to the forefront and making it a central issue of the industrial conflicts of both 1908 and 1920–21. The attempts of the UMW to organize the coal fields of West Virginia further demonstrate the difficulties encountered by unions which attempt to build effective organizations where the labor force is represented by large numbers of both races.

The UMW first entered West Virginia a few months after it was founded in 1890, but its efforts were for the most part unsuccessful until the period during and immediately following the first World War. Then the heads of the miners' union realized that the very existence of their organization was threatened by the low wage and price schedules of the non-union southern fields.[23] After a strenuous campaign, the UMW secured contracts with about 80 per cent of the producers in northern West Virginia, and with the operators in the southern counties of Fayette, Kanawha, and Raleigh, but failed to secure even a foothold in Logan, Mingo, Mercer, and MacDowell, the counties along the southeastern rim of the state. Within a few years after the War, the UMW was driven entirely from southern West Virginia, and from most of the northern part of the state as well.[24]

Likewise, the miners' union obtained a precarious footing in eastern Kentucky during the War, but was driven out soon thereafter.[25]

The failure of the miners' union to organize the workers in the southernmost counties of West Virginia is not difficult to understand. The operators in this section of the state employed practically every device known to anti-unionists,

[21] Spero and Harris, *op. cit.*, p. 358; *Alabama News Digest*, *loc. cit.*

[22] Spero and Harris, *op. cit.*, pp. 360–362.

[23] C. P. Anson, *A History of the Labor Movement in West Virginia* (unpublished Ph.D. thesis, University of North Carolina, 1940), pp. 98–100, 116–117.

[24] *Ibid.*, pp. 122–123; Spero and Harris, *op. cit.*, pp. 367–370.

[25] U. S. Senate, 76th Congress, First Session, *Report of the Committee on Education and Labor: Violation of Free Speech and the Rights of Labor*, No. 6, Part 2, "Private Police Systems, Harlan County, Ky." (1939), p. 1920.

including race-hatred propaganda, to defeat the union, which often also resorted to extreme measures.[26]

In their attempts to organize the miners of West Virginia, as in Alabama, the leaders of the UMW adhered to the policy of organizing both white and colored workers into the same local bodies. Although the union was successful in bringing large numbers of both white and colored miners into the fold, the presence of a large number of workers of both races played into the hands of the operators. The white miners, themselves divided between native "mountaineers" and recent immigrants from southeastern Europe, were loathe to make common cause with the Negroes. The employers were quick to capitalize upon this situation by spreading rumors that should the United Mine Workers be successful, the black miners would lose their jobs. In addition, the West Virginia operators, as in past labor disputes, imported large numbers of Negro agricultural workers from neighboring states further South. The effect was both to supply a labor force with which strikes were defeated, and to add to the antagonism between the races.[27]

The failure of the United Mine Workers to organize the Southern Appalachian fields put it on the defensive during the remainder of the 'twenties. Unable either to compete with the low wage South or to induce the UMW to make wage concessions, company after company broke with the union in order to cut wages, until in 1927, after the wholesale shift of production from North to South, the entire collective bargaining machinery in the central competitive field collapsed. The next five years were featured by vicious price and wage slashes, and by internal dissension within the shattered UMW.[28]

The organizing opportunity afforded by the NRA was taken advantage of by the UMW as by no other union. When the law went into effect, organizers were already in the field. Within three months, 90 per cent of the nation's coal miners had been enrolled by the UMW. The desperate conditions in which the miners found themselves as a result of the depression caused them to embrace unionism with such unanimity as to make opposition on the part of even the most bitter anti-union operator largely futile. Besides, after the experience of the preceding five years, many of the operators questioned the desirability of unrestricted wage and price competition in the industry.[29]

That is not to say that the majority of the southern coal mine owners welcomed the UMW. Company unionism, some violence, and race prejudice were used in an endeavor to stem the tide. This time, however, even the last named

[26] See W. D. Lane, *Civil War in West Virginia* (New York: W. W. Huebsch, 1921); and A. F. Hinrichs, *The United Mine Workers of America and the Non-union Coal Fields* (New York: Columbia University Press, 1923).

[27] Spero and Harris, *op. cit.*, pp. 368–379; Anson, *op. cit.*, pp. 53–54, 65.

[28] For an account of the revolts and dual movements of the miners in this period, see Parker, *The Coal Industry*, pp. 77–81. Today the only survivor as a rival to the UMW is the Progressive Mine Workers (AF of L), which has contracts covering about 15,000 workers in Illinois.

[29] Waldo E. Fisher, "Bituminous Coal," in H. A. Millis, *et al.*, *How Collective Bargaining Works* (New York: Twentieth Century Fund, 1942), pp. 268–269.

failed. The terrible privations of the depression imbued both races with mutual understanding and tolerance. The arguments of the UMW organizers, both white and colored, that no union could succeed unless it had the support of both white and black miners, were heeded. When, in Alabama, the Ku Klux Klan was revived to fight the union, white miners joined it, won control of it, and destroyed its effectiveness.[30]

With the assistance of President Roosevelt and the NRA machinery, the UMW won an agreement covering the entire Appalachian area in September 1933. Bolstered by Federal regulation of competition in the industry, the UMW has steadily raised wages and extended its control until in 1941, it established a $7.00 basic wage rate for both North and South, and secured the union shop for almost the whole working force in the industry.[31]

The Alabama mining field has never been included in the Appalachian agreements because of unique local conditions.[32] At present the basic wage in Alabama is approximately $1.50 below that of the Appalachian agreement.

V

The revival of unionism in the bituminous coal industry, and the subsequent establishment of industry-wide collective bargaining has, then, meant a substantial increase in the standard of living of the Negro, as well as of the white, miners in the South. But the consequences of organization to the thousands of colored miners in the South cannot be judged solely on the basis of immediate gain. What unionism has meant to them in other respects, and whether they stand to gain from it in the long run are equally important questions. Before an attempt is made to answer them, a brief review of the experience of the UMW in organizing Negroes in recent years is in order.[33]

It must be re-emphasized at this point that the UMW has an enviable record of practicing, as well as preaching, racial equalitarianism in its organization ever since it began to function. It is true that there have been instances of discrimination against Negroes in particular locals, both in the North and in the South. But the officials of the national union have never, to the writer's knowledge, condoned such action, and have not hesitated to chastise individual locals for failing to live up to the letter of the non-discrimination policy.[34] Moreover, the UMW has always conducted both its organizing campaigns and its day-to-day union affairs without prejudice to any race.

[30] H. R. Cayton and G. S. Mitchell, *Black Workers and the New Unions*, (Chapel Hill, N. C.: University of North Carolina Press, 1939), pp. 321–323, 358–361; Jonathan Daniels, *A Southerner Discovers the South*, (New York: Macmillan Co., 1938), pp. 281ff.

[31] Fisher, *op. cit.*, pp. 270–275.

[32] The veins in which the coal is located in Alabama are generally thin, and the coal contains a high percentage of impurities. Both these factors increase the cost of recovery.

[33] The paragraphs devoted to the relationship of the UMW and the Negro miners in West Virginia and Alabama are based mainly upon the writer's field work in the summers of 1940 and 1941. In addition the works of Cayton and Mitchell, *op. cit.*, pp. 344–359 and Dr. Norgren's MS, *op. cit.*, were of material assistance for the discussion pertaining to Alabama.

[34] See, e.g., Spero and Harris, *op. cit.*, p. 375.

When the 1933 organizing campaign was initiated in the South, the UMW did not deviate from its equalitarian policities. The success of the campaign was indeed a tribute to the forthright manner in which its representatives faced the race issue and preached the necessity of interracial cooperation.

But more important than the success of the organizing campaign has been the ability of the UMW district leaders in the South to devise a workable system whereby the two races could cooperate effectively and yet not antagonize the public by encroaching too sharply upon the customs of the communities. In West Virginia, where rigid separation is not the rule, and where race patterns are relatively fluid, the problem was not so serious;[35] but in Alabama a good deal of both tact and courage was required.

For example, when the time came for the election of local officers, the Alabama district leaders advocated the selection of whites as presidents and Negroes as vice-presidents, and this procedure was followed in locals even where the Negroes were in a majority. This device was designed to facilitate good employer-employee relations, for the local president usually heads the "pit committee" which meets with representatives of management for the joint settlement of grievances arising from working conditions in the mines. It was felt that the employers should be accustomed to the novelty of joint grievance committees before being subject to the still more novel experience of having to deal with Negroes as equals. At the same time, the election of Negro vice-presidents and of other Negro officers provided the colored miners with representation in the policy-making decisions of the locals.

The results of this policy of gradualism are already discernible. According to a number of informants of both races, Negro members of grievance committees, who a few years ago would have risked physical violence had they raised their voices in joint union-management meetings, now argue their cases quite as freely as their fellow white members. Local meetings are no longer featured by such "formal" relationships between the races, as, according to Dr. G. S. Mitchell, was the case in 1934–35.[36] White members no longer hesitate to call a Negro unionist "Brother", or to shake hands with Negro delegates without displaying embarrassment. And now, Negro delegates contribute freely to discussions.

In West Virginia, it was not found necessary to adhere to a policy of strict gradualism. Negroes are usually well represented among the local and district officers and in some cases have been elected local union presidents even though white miners are in the majority. In many mines where there are a large number of foreign-born workmen, it is the custom to elect on a three-man pit committee, one from this group, one native white, and one Negro. By such means, the UMW has been able to weld into a united front that conglomerate mixture

[35] Separation of the races is not nearly so rigid in West Virginia, as in states farther South. E.g., although education is conducted on a separate basis and intermarriage of the races is forbidden, West Virginia has none of the numerous "jim crow" laws which are on the statute books of Alabama.

[36] See Cayton and Mitchell, *op. cit.*, pp. 344–348; and G. S. Mitchell, "The Negro in Southern Trade Unionism," *Southern Economic Journal*, II (September 1936), 30.

of races and nationalities which many coal operators once thought was an insurmountable bar to unionism.

The machinery for the settlement of grievances constitutes one of the major gains which unionism has brought to southern miners. Undoubtedly, Negroes have benefited more from it than whites. Colored miners are more heavily concentrated in the hand loading jobs, where payment is computed on a tonnage basis. Output on these jobs is frequently seriously interfered with by unusual mining conditions and other unavoidable circumstances. It was not until the advent of unionism and its grievance machinery that equitable adjustments were made in such instances. In addition, the power of mine foremen to discharge without cause or to assign to the poorer workplaces—treatment which these petty officials have been more inclined to inflict upon Negroes than upon whites—is now subject to joint union-management review, where the aggrieved can seek, and find, redress. The results of grievance machinery have been material, as well as psychological.

By far the most difficult problem which confronts the equalitarian program of the United Mine Workers involves the disposal of employment problems incident to the introduction of labor-saving machinery, nowadays principally loading machines. Coal loading machines were introduced into the mines on a large scale soon after the first World War, but before 1933 their use was largely confined to the high wage areas of the North. Since then, under the impetus of unionism and high wages, mechanical loading machinery has made very rapid strides in the Southern Appalachian region. In West Virginia, for example, less than one per cent of the total production was loaded by machines in 1933; by 1940, however, the proportion had jumped to 70.2 per cent. Likewise in the other Southern Appalachian states, less than one per cent of the total output was mechanically loaded in 1933; but in 1940, the relevant figures were, for Alabama, 32 per cent; for Kentucky, 76.8 per cent; for Tennessee, 13.1 per cent; and for Virginia, 64.2 per cent.[37] That the percentage of coal loaded by machinery has continued to increase since 1940 is shown by the fact that in 1941 the number of mobile loaders sold to mine operators reached the highest figure ever recorded, and a majority of these were purchased for use in the Southern Appalachian region.[38]

It has been estimated by competent experts that 46 men working with mobile loaders can do the work of 100 hand loaders.[39] Along with unemployment

[37] Data from Hotchkiss, *op. cit.*, p. 210; and U. S. Dept. of the Interior, Bituminous Coal Division, *Weekly Coal Report*, July 11, 1942, Table VIII. The machines under discussion here are primarily mobile loaders, which entirely eliminate hand loaders, but the figures also include "scrapers" and "duckbills," the displacement rate of which is not so heavy. Conveyors and pit-car loaders are not included in these figures. These last two types do not eliminate loaders, but affect certain maintenance jobs and speed up operations. Practically all coal not loaded by machine is loaded by the conveyor method, which does not affect Negroes disproportionately. For a description of these machines, see Hotchkiss, *op. cit.*, pp. 113–142.

[38] W. H. Young, *et al.*, "Mechanical Mining," reprinted from *Coal Age*, February 1942.

[39] S. H. Slichter, *Union Policies and Industrial Management*, (Washington: The Brookings Institution, 1941), p. 271.

attributable to declining markets, this technological displacement has meant a real hardship to the miners. Moreover, there is no doubt but that Negroes have borne the brunt of the unemployment, for it is to the introduction of these loading machines that the already noted sharp drop in the proportion of Negroes in the industry since 1930 is primarily ascribable.[40] Indeed, this was to be expected since Negroes are more heavily concentrated in the hand loading jobs than are whites. But more important is the fact that Negroes have not received a proportionate share of jobs as machine operators. There are several reasons for this.

The introduction of machinery, or the substitution of a new technique for an old, has often meant in the South the displacement of Negro hand workers by white machine operators. Thus when undercutting machines and other mechanical devices were installed in southern coal mines earlier in the century, whites were assigned in disproportionately large numbers to operate them, and most black workers remained hand loaders. This was the pattern *before* the advent of the UMW and collective bargaining. Hence, when loading machines were installed, the employers gave white workers preference as a matter of course.

This, of course, is in direct conflict with the equalitarian policies of the UMW, but until recently, the district officials of the union have hesitated to take a firm stand on the question. For the very reason that machine jobs have been traditionally "white man's work", the UMW officials, pursuing a policy of gradualism, did not attempt a quick break with the past. More important, it is at least questionable whether, before 1939, the heads of the UMW had given the question of technological unemployment the serious attention that it deserved.

The UMW has not opposed the introduction of machinery; it has merely insisted that the benefits therefrom be shared with its members.[41] But before 1939 few of the district agreements in the South contained clauses providing that workers who had been displaced by machines should be re-hired, if possible, before newcomers could be employed.[42] Indeed, it was not until 1941 that such provision was written into the basic Appalachian agreements.[43] But since the qualifications for machine loading jobs are not possessed by all hand loaders, strict seniority cannot be observed in the transfer from handwork to machine operation, and so the way is still open for discrimination unless the national and district officials of the UMW are vigilant and the employers cooperative.

A further point should be brought out. Because the white workers had performed the bulk of the machine jobs before the introduction of mechanical

[40] See above, pp. 4–5, 9–11.

[41] Slichter, *op. cit.*, pp. 271–272.

[42] E.g., the agreement between the Alabama coal operators and UMW, District 20, for 1937–39 makes no mention of the subject of seniority.

[43] The 1941 Appalachian agreement reads in part: "Seniority affecting return to employment of idle employees on a basis of length of service and qualification for the respective positions brought about by different mining methods or installation of mechanical equipment is recognized. Men displaced by new mining methods or installation of new mechanical equipment so long as they remain unemployed shall constitute a panel from which new employees shall be selected."—*United Mine Workers Journal*, July 15, 1941.

loaders, they often have been in a better position to learn how to operate the mobile loading machines. This, of course, has counted in their favor, and against Negroes.

In sum, then, because for various reasons, the UMW has not obtained equal treatment for Negroes in the allocation of job opportunities, white miners may be said to have benefited from unionism to a greater extent than Negroes, although the advantages to the latter in the form of increased wages, better working conditions, and protection from arbitrary treatment on the job have been substantial. To what extent this will hold true in the future, depends upon the outcome of post-war adjustments.

VI

Because of the war boom, current demands for coal exceed those in any previous period since the first World War. In addition, the draft and the migration of miners to more lucrative jobs have depleted the industry's working force. Consequently, miners displaced by machinery at the present time have little difficulty in finding employment.

When the war is over, however, the abnormally large demand for coal may be expected to subside and, as a result, employment in the industry will decline. Moreover, the employment problem is likely to be aggravated by mechanization, by the use of more efficient methods of fuel utilization, and by the competition of substitute fuels, all of which adversely affected employment in the industry between the two World Wars. Especially are these three economic forces likely to threaten the stability of the industry if the UMW officials use their great bargaining power to gain ever higher wages and shorter hours, for such a policy will probably accelerate the substitution of machines for men and the introduction of improved methods of fuel utilization, as well as worsen the competitive position of coal in relation to other fuels.[44]

If, as predicted, employment in the bituminous coal industry declines when peace returns, and if past experience is any guide, Negroes will suffer disproportionately heavy losses in jobs. This is particularly likely to occur in instances where machines replace men. These post-war adjustments will put the equalitarian policies of the UMW to their severest tests. If Negroes continue to bear the brunt of technological unemployment, the UMW will no longer be able to claim that it adheres to a policy of racial equalitarianism as steadfastly, if not more so, than any other American labor union.

[44] Slichter, *op. cit.*, pp. 362–363; Fisher, *op. cit.*, pp. 276–277.

POPULATION INCREASE, MUNICIPAL OUTLAYS, AND DEBTS

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I

Capital outlays by city governments have absorbed in the past an important part of savings in the United States. Cities of 30,000 or over, to say nothing of smaller cities, counties, and other units of local government, spent over a billion dollars annually on capital outlays during the twenties.[1] The outlays were largely financed by net increases in indebtedness which provided a substantial outlet for private savings. Particularly notable during this period were the expenditures for outlays by cities in the Southeast which ended the decade in 1930 with larger per capita debts on an average than cities in other regions.

Beginning soon after the depression of the early thirties, payments for outlays were sharply reduced and have never returned to their previous level.[2] During the same period there has been a decline in the rate of borrowing. In contrast with 1930 when practically all cities reported larger per capita net debts than ten years previously, 52 out of 92 cities above 100,000 for which data are available reported smaller per capita net debts in 1939 than in 1930.[3] Comparisons between the periods are summarized by regions in Table 1. On the whole, the average per capita net debt decreased slightly between the two dates although there are exceptions by regions. Where increases occurred in certain regions, they were moderate in comparison with the increases in the previous decade.

Early writers believed that rapid population increase was partly responsible for the increase of municipal debts. Bastable wrote that local borrowing was dependent upon "the existence of favoring conditions." One of these conditions was the need arising from city life for "the creation of works involving capital outlay."[4] Adams stated that cities which grew rapidly required outlays for public improvements. Growth in need outran ability to pay. Borrowing was therefore necessary.[5]

[1] U. S. Department of Commerce, *Financial Statistics of Cities: 1930*, Washington (1932), p. 56. Outlays are the costs of land and other properties and public improvements more or less permanent in character which are owned and used by cities in the exercise of their city functions.

[2] Total cost of capital outlays in cities of 100,000 or over for both general government and public service enterprises was $525 million in 1938 compared to $942 million in 1930. Data for cities below 100,000 are not available since 1931. *Ibid.* for 1930 and 1938.

[3] There has been a change in the method of reporting city debts between 1930 and 1939. In 1930 the Census Bureau did not separate debts incurred for public service enterprises from those for general governmental purposes. In order to make the figures for the two dates comparable, per capita net debts for both general government and public service enterprises have been added together. Data for 1939 are from mimeographed press releases.

[4] C. F. Bastable, *Public Finance*, London (1893), p. 714.

[5] H. C. Adams, *Public Debts*, New York (1887), pp. 344–353.

More recent students, basing their conclusions upon experience from 1920 to 1930, concluded that there was little connection between city growth and increase in debt. Their use of statistics in arriving at this conclusion can, however, be questioned.[6]

Cities, of course, incur debts for other purposes than to pay for capital outlays. These other purposes are in no way connected with population increase. The debts may be incurred to meet operating deficits or to meet extraordinary expenditures such as unemployment relief. In this respect, those critics who doubt the connection between population growth and increase in debt are correct. Yet, over a period of time, outlays have been primarily responsible for the growth in municipal debt of cities as a whole.[7] Many individual cities are exceptions to the general conclusions.

TABLE 1

ARITHMETIC MEANS OF PER CAPITA NET DEBTS BY REGIONS

	1930	1939
Cities 500,000 and over in 1930		
Northeast	$163.91	$201.11
Middle	188.64	138.82
Far West	197.67	232.60
United States	170.96	170.92
Cities 300,000–500,000 in 1930		
Southeast	121.67	130.90
Northeast	208.96	197.30
Middle	121.83	131.82
Northwest	107.96	74.62
Southwest	142.95	127.18
Far West	220.64	182.14
United States	167.07	150.67
Cities 100,000–300,000 in 1930		
Southeast	139.91	141.05
Northeast	108.21	117.13
Middle	90.20	74.31
Northwest	89.03	48.05
Southwest	115.02	94.87
Far West	142.75	99.43
United States	111.51	100.13

[6] A. M. Hillhouse, *Municipal Bonds*, New York (1937), pp. 247–248; Evans Clark, *The Internal Debts of the United States*, New York (1933), pp. 260–261. Hillhouse reaches his conclusion by comparing the per cent increases in population for total rural and urban population by states with per cent increase in net municipal debts by states. Clark based his conclusions upon comparison of combined state and local debts with state population increases. Neither of these methods reveals the effect of population increase of cities alone.

[7] During the 1920's payments for operating expenses and interest were from 75 to 80 per cent of total revenues for all cities above 30,000. It is only when payments for outlays are added that total expenditures exceed total revenues from sources other than borrowing.

The general slowing down of population increase in the United States has centered interest upon the problems which may be created in respect to the effect upon the outlet for savings through opportunities for capital investment. The slowing down of population growth was greater in cities than in the nation as a whole from 1930 to 1940. A reconsideration of the effect of population growth upon city outlays and debts is justified if it can aid in consideration of the larger problem. Data on city governments are well adapted to testing conclusions empirically since they exist for many units and over a considerable period of time.

II

For purposes of discussion, capital outlays by city governments may be divided into two general classes: those for the replacement of capital assets worn out and those representing net additions. The latter class may be further divided into those made to maintain an existing level of governmental service and those provided to raise the level of governmental service. For the present, the second class of additions to the capital structure is ignored.

Given an existing level of governmental service to be maintained and a constant population, a city's capital outlays would be confined to replacements. Although outlays might be financed by incurring debt, over a period of years, debt retirements would equal the average of yearly replacements, provided of course, the proper steps were taken to retire the debt as new debts were incurred.

A rapid increase in the population of a city requires not only replacements but additions to the city's capital equipment, in order to maintain an existing level of governmental service. Since it is difficult to adjust the tax structure immediately in order to meet the new needs created by population increase, the net additions might be met by borrowing. In this respect, the increase in municipal debts could be called a function of population increase. The less the ability to pay through the tax structure, the greater will be the pressure to borrow. The alternative in a rapidly growing city which could not adjust the tax structure immediately would be to reduce the level of governmental services. If it is possible to borrow and postpone the pain of paying taxes, it is unlikely that a city will reduce its standard of living.

A cessation of population growth leaves the city provided with sufficient capital improvements to meet existing needs. Outlays may be confined to replacements. In addition, even though the city may continue to grow but at a declining rate, if the period immediately preceding has been one of rapid growth the amount of replacements may be smaller than if the population had been stable over the two periods. If there has been a period of rapid growth in the past, new capital assets of a relatively long life have been provided within a short time and these need not be replaced immediately. Since debts incurred for outlays in the past must be redeemed, it may be necessary to borrow to finance replacements, but the total debts need not rise. Debts may not decline unless

(*Financial Statistics of Cities, 1930*, pp. 30–31.) Comparable data for cities below 100,000 are not available for the 1930's. However, for cities above 100,000 the same situation was true. (*Financial Statistics of Cities, 1938*, pp. 1, 32, 98.)

a program of debt retirement is undertaken, but there is a greater opportunity for doing so. The same amount spent upon outlays which were paid for currently may be sufficient to pay for replacements and some debt retirement.

Additions to capital assets are not, however, made exclusively in order to maintain a given level of governmental service. The expansions of governmental service was noteworthy during the twenties.[8] Any sudden raising of the level of service may cause a resort to borrowing in order to pay for outlays. A rapid population increase occurring at the same time that an expansion of governmental service is taking place may be expected to reinforce any tendency toward borrowing.

III

It is possible to measure statistically the adequacy of the theory that has been developed. To test the hypothesis an analysis has been made of the experience of cities of 30,000 to 300,000 for the period 1920 to 1930. Analysis has been confined to cities below 300,000 since data for cities above 300,000 are not comparable with those below. Correlation coefficients have been computed to show the relationship between the rate of population increase and per capita outlays, the per cent of outlays financed by borrowing, and per capita debts in 1930. The computation of such coefficients required the creation of some sort of measure of per capita outlays for each city. Per capita figures for outlays are not computed for the *Financial Statistics of Cities* since the Bureau of the Census believes that since outlays are of a nonrecurring nature, a yearly per capita figure for each city would be misleading. In order to meet this criticism, a per capita figure for a five year period has been computed by dividing the cost of outlays from 1926 through 1930 by the 1930 population. No data were available for individual cities which showed the per cent of outlays financed by borrowing. To supply such data, a figure was computed for each city for the period 1926—through 1930 by dividing the total increase in net debt for the period by the total outlays. In practice, of course cities often borrowed to pay for particular outlays while retiring other debts. What is measured is the net effect.[9]

The results of the computations are shown in Table 2. In all cases there is a positive correlation with the rate of population increase. Since in all cases the coefficient is more than three times the standard error, they may be considered significant. Cities which grew more rapidly from 1920 to 1930 spent more per capita on outlays from 1926 through 1930, borrowed more of the cost, and ended the period with higher per capita debts than cities which grew less rapidly. A better understanding of the relative importance of population increase to other factors in influence may be found by converting the coefficients of correlation into coefficients of determination. Measured by such coefficients, the rate of popu-

[8] See C. H. Wooddy, "The Growth of Municipal Activities," *Public Management*, xv (1933), 19–23; L. D. Upson, "Research and Increased Functions of City Government," *American City*, xvii (1932), 407–410.

[9] Data for this section, unless otherwise indicated, are based upon computations of data from U. S. Department of Commerce, *Financial Statistics of Cities*, for 1926 through 1930.

lation increase explained 31.3 per cent of the variation in outlays, 11.6 per cent of the variation in the per cent financed by borrowing, and 7.1 per cent of the variation in per capita net debts in 1930. In the Southeast (not shown in the table), variations in the rate of population increase explained 38 per cent of the variation in debts.

The influence of population increase may be shown in a different manner. Satellite cities grew more rapidly from 1920 to 1930 than central and independent cities.[10] In Table 3, data are classified according to the three types of cities. In satellite cities, which grew at a higher rate, there were greater per capita outlays, more of the outlays were financed by borrowing, and there were higher per capita net debts.

The size of the city, as measured by correlation coefficients, did not exert a similar effect. There was a correlation of +.14 ±.07 between the size of the

TABLE 2

CORRELATION COEFFICIENTS BETWEEN PER CENT OF POPULATION INCREASE 1920–30 AND VARIOUS FACTORS—CITIES, 30,000–300,000, 1930

Per capita outlays, 1926–30	+.5800 ±.0459
Per cent of outlays financed by borrowing	+.3415 ±.0590
Per capita net debt, 1930	+.3536 ±.0513

TABLE 3

ARITHMETIC MEANS OF FACTORS CONCERNED WITH PER CAPITA NET DEBTS—CITIES 30,000–300,000, 1930, BY TYPE OF CITY

	CENTRAL	SATELLITE	INDEPENDENT
Rate of population increase, 1920–30	29.4%	46.4%*	31.7%
Per cent of outlays borrowed, 1926–30	32.5%	33.5%	22.7%
Per capita outlays, 1926–30	$84.25	$98.56	$74.65
Per capita net debt, 1930	103.57	107.47	84.14

* Excluding Dearborn, Michigan, with a population increase of 1938 per cent.

city and per capita outlays, and a correlation of +.13 ±.07 between the size of the city and the per cent of outlays financed by borrowing. There was a correlation of +.17 ±.06 between the size of the city and the per capita net debt. None of the correlations is significant.

IV

In contrast with the period from 1920 to 1930, when cities generally increased in population, the period from 1930 to 1940 was one of comparatively stable population for the majority of cities. The population of 68 out of 92 cities above 100,000 increased ten per cent or more from 1920 to 1930 while only four decreased in size. From 1930 to 1940 only 17 out of the 92 cities increased ten per cent or more while 28 decreased in size. Only one city increased as much as

[10] As defined in the U. S. Bureau of the Census, Fifteenth Census, *Metropolitan Regions*.

50 per cent from 1930 to 1940 while 16 increased 50 per cent or more from 1920 to 1930 and six of them increased 100 per cent or more. Seventy-five of the 92 cities remained comparatively stable in population from 1930 to 1940 since they either increased or decreased less than ten per cent Not only were the population increases greater from 1920 to 1930, but there were wider variations between rates of increase than from 1930 to 1940.

The slowing down of population increase has been paralleled by a decrease in outlays and a contraction in per capita net debts for the majority of cities of over 100,000. Since data for cities below 100,000 have not been collected since 1931, it is impossible to state what has occurred in those cities. How widespread has been the decrease in per capita net debts from 1930 to 1939 is indi-

TABLE 4

PER CENT CHANGE IN PER CAPITA NET DEBTS—1930–1939

	NUMBER OF CITIES			
	500,000 and over	300,000–500,000	100,000–300,000	Total
Per cent increase:				
50 or over	—	—	4	4
40–49	—	—	5	5
30–39	—	1	2	3
20–29	3	1	4	8
10–19	3	2	5	10
Less than 10	—	3	7	10
Total increasing	6	7	27	40
Per cent decrease:				
Less than 10	4	3	5	12
10–19	1	2	10	13
20–29	1	1	13	15
30–39	—	1	5	6
40–49	1	—	3	4
50 and over	—	—	2	2
Total decreasing	7	7	38	52

cated in Table 4. In 1939, 52 out of the 92 cities above 100,000 had smaller per capita net debts than in 1930. More cities had smaller per capita debts than increased their debts in each group of cities except one where the proportion was evenly divided. The fact that a number of cities had substantial increases in debt accounts for the relatively small change in the averages which were shown in Table 1.[11]

Judging by the experience of cities of over 100,000, the decline in outlays has

[11] Data for 1939 include debts for public service enterprises as well as for general government in order to make them comparable with those for 1930. Data for this section, unless otherwise indicated, are based upon computations of data from U. S. Departmnt of Commerce, *Financial Statistics of Cities* for 1935 through 1939.

not been as great as the decline in the tendency to borrow to pay for outlays. Outlays for general government and public service enterprises amounted to $616 million in 1939 while there was an increase in the total net debt of $8,859 thousand. Outlays by the same group of cities were $942 million in 1930 with an increase in net indebtedness of $412 million. In other words, 43.6 per cent of the outlays were financed by borrowing in 1930 while only 1.4 per cent were so financed in 1939. The amount of outlays paid for currently in 1939 was, in fact, larger than in 1930.[12]

The decline in the rate of borrowing to finance outlays may be explained by many factors of which the decline in population increase is only one. One reason may be the increase in grants by central governments. Grants in 1930 were

TABLE 5

ARITHMETIC MEANS OF FACTORS CONCERNED WITH BORROWING—CITIES 100,000–300,000, 1939

	PER CENT OF POPULATION INCREASE, 1930–40	AVERAGE YEARLY PER CAPITA OUTLAYS 1935–1939*	PER CENT OF OUTLAYS BORROWED†	PER CAPITA NET DEBT 1939‡
United States	1.4	$11.12	20.2	$100.13
Southeast	14.7	11.50	38.1	141.05
Northeast	−0.1	9.63	29.3	117.31
Middle	1.8	7.55	11.1	74.31
Northwest	3.6	14.91	1.7	48.05
Southwest	7.9	8.72	16.2	94.87
Far West	13.5	20.21	0.0	99.43

* Computed by adding total outlays for each city for the five years, 1935 through 1939, dividing the population of 1940 into the total, and dividing the result by five. The outlays include those for general government and public service enterprises. Outlays for public service enterprises have been separately reported in 1936 and a further change was made later. In order to include a five year period and to make data comparable, outlays for both classes have been included.

† Cities which retired debts as well as paid for outlays currently are classified with those which only paid for outlays currently. There is thus a discrepancy between the average for the United States and the figure for the total.

‡ Includes debt for both general government and public service enterprises.

five per cent of the total revenue in cities of 100,000 or over compared with 16.8 per cent in 1939. Much of the increase in grants has been in grants by State governments which are primarily allocated to operation and maintenance. P. W. A. grants in 1939, however, amounted to $85 million, which, when deducted from the amount paid for currently in 1939, reduce the amount which was raised locally in 1939 to approximately the same amount as in 1930. The increased adoption of a pay-as-you-go policy may also represent a reaction to the overexpansion of debts in the twenties.

Whatever may be the other reasons for the decline in borrowing, the decline

[12] The estimates are based upon changes in total indebtedness of all cities and not whether any particular outlays in any particular cities were financed by borrowing.

in population increase had made it easier to inaugurate a pay-as-you-go policy. With no additional need for capital outlays created by increase in population, cities may confine their expenditures for outlays to replacing existing ones which have worn out. The stimulation afforded by Federal loans and grants may have only partially replaced the stimulation previously afforded.

Compared with the period 1920 to 1930 there were not such wide variations between cities in their rates of population increase from 1930 to 1940. The factor of population increase was not present in many cases. The latest available data showing outlays and per capita debts are for 1939. Coefficients of correlation have not been computed since plotting of the data revealed no possible relationship between the low rates of population change and the various factors. The data, however, have been classified by regions to indicate any possible relationships. They are given in Table 5.

The fact that there is no relationship between population change from 1930 to 1940 and outlays is not contrary to the theory that outlays and debts are influenced by population change. Since there was such a slowing down of population increase from 1930 to 1940, no correlation between the small rates of increase and outlays would be expected. The coefficients from 1920 to 1930 indicated that population increase could explain only a part of the variations in outlays and borrowing practice. During that period the average rate of population increase for cities of 100,000 to 300,000 was 26.5 per cent compared with 1.4 per cent from 1930 to 1940. Population change from 1930 to 1940 was so small in most cities that it failed to exert any influence.

V

There is evidence to indicate that during a period of general investment in capital outlays, differences in rates of population increase explain some of the differences in municipal outlays, borrowing habits, and debts. In general, those cities with higher rates of population increase spent more for outlays and incurred greater debts than cities with smaller rates of population increase.

Although complicated by the influence of general economic conditions and governmental policy, it is possible that the trend toward a decline in population increase may have been a contributing factor in the decline of municipal outlays and debts. Assuming the existing attitude toward the functions of government, it is possible that unless a revival of business activity is accompanied by general population increases, it may not result in a great increase in municipal capital outlays.

Retirement of municipal debt has been one of the deflationary factors operating during the thirties. If cities continue to grow slowly, a large outlet for the investment of private savings may be closed. It is possible that new fields of activity which will require outlays by cities will be opened. The war program will undoubtedly make it necessary for cities to postpone many outlays until after the war. These additional factors may take the place of the stimulus of population increase. Despite such qualifications and others that may develop, they will not be reinforced by population increase unless the rapid growth of cities is resumed.

THE CHOICE OF CAPITALIZATION RATIOS IN PRACTICE

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Problems of value and valuation have created one of the most fertile fields for discussion to be found in the realms of economics and business. Despite the fact that the determination of value is the core thought of economics and business, there is probably no one topic about which there is less unanimity of opinion. Students of economic theory and business problems need no reminder of this fact; others need only to look at the table of contents of Bonbright's monumental treatise, *The Valuation of Property*,[1] to be convinced.

This paper treats of the problem of valuing a production unit, a bundle of production factors organized as a business concern. As indicated by the title, the paper discusses one specific method of arriving at the desired valuation, i.e., capitalization of earnings. No attempt will be made here to discuss the relative merits of this procedure as opposed to some other, for such discussion the reader is referred to Bonbright's work already cited.[2] However, as Bonbright points out, the most unsettled question in the field relates to the proper rate applicable to the anticipated earnings in arriving at the proper valuation. The rates used by the Securities and Exchange Commission in their advisory opinions issued pursuant to the discharge of their duties under the Chandler Act[3] will serve as the core of the paper; rates applied in other instances will also be observed.

I

Under the Chandler Act, provision is made for the submission of proposed reorganization plans for bankrupt corporations to the courts, which plans are reviewed by the Securities and Exchange Commission with a view to determining their "fairness and soundness and revealing any weaknesses or inequities."[4] On the basis of an actual monetary figure representing present value, the Commission has advised that a plan is or is not fair or feasible. On the basis of this value and in line with the doctrine of the Boyd Case[5] the Commission has ruled that certain groups of security holders might participate in the newly formed corporation and other groups might not. In the first two advisory reports released[6] the Commission was dealing with situations in which the capitalization of earnings could not be applied. In the third opinion, released June 16, 1939,[7] the

[1] Bonbright, James C., *The Valuation of Property*, McGraw-Hill, New York, 1937, Vols. I and II.

[2] *Ibid.*, 262ff.

[3] Corporate Reorganization Release No. 2, p. 2, Securities and Exchange Commission, Washington.

[4] Corporate Reorganzation Release No. 2,p. 2.

[5] *Northern Pacific R. R. v. Boyd*, 228 U. S. 482 (1913), 33 Sup. Ct. 554.

[6] Corporate Reorganization Release Nos. 8 and 9.

[7] Corporate Reorganization Release No. 13, p. 5.

Commission laid the basis for its future policy in valuation by stating: "The view generally taken both by modern writers in the field of finance and by courts is that, for purposes of reorganization, reasonably prospective earnings of the enterprise constitute the true measure of its value."

We can conclude, then, that the method by which the Commission arrives at its figure for "present value" is all-important. For example, in the case *In the Matter of Flour Mills of America, Inc.*[8] the Commission denied holders of preferred stock any participation in the reorganized company. This denial was made because such participation would indicate a value requiring an 8 per cent capitalization rate. The Commission took the position that 12 per cent should be used. It is significant that the federal court in this case ruled that there was a residue of value for the preferred stockholders. The point should be poignantly clear that principles of valuation are not mere academic problems—certainly not to the holders of the 25,000 shares of preferred stock in this case. The point cannot be made too emphatically.

If the capitalization of future earnings is to determine the fate of a host of security holders, the principles of arriving at the rate of capitalization must be sound. Bonbright, writing in 1937, had the following to say of capitalization rates:

> In consequence, [of scant scientific study and attention] the legally accepted rates of capitalization have been adopted by an admixture of tradition (such as that in favor of a 6 per cent rate or a 10 per cent rate) and guesswork.[9]

Students of finance and of evaluation will be much interested in observing the extent to which the Commission eliminates elements of "tradition and guesswork" from its application of capitalization ratios.

The cases which are to be reviewed are those in which the Commission has applied a capitalization ratio.[10] In the eleven relevant cases the following is the record of capitalization ratios used:

Ratio	Number of Cases
8	1
8.7	1
9.8	1
10	5
12	2
15	1

[8] Corporate Reorganization Release No. 22, p. 22. Also Release No. 30, p. 1.

[9] Bonbright, J. C., *op. cit.*, p. 266.

[10] This is not primarily a study of Commission procedure; however, the practice of the Commission serves as a new point of departure for investigating current practice relative to the use of ratios. The significance of the ratio applied in a particular instance may be seen by observing a hypothetical example. If estimated future profits of a corporation are $100,000, their capitalization on a 10 per cent basis would produce a value of $1,000,000. The use of a 9 per cent figure would produce a value of $1,111,111; the use of an 8 per cent figure, a value of $1,250,000. A change of $11,111 in estimated earnings would be necessary to produce the first change in value noted and a change of $12,500 would be necessary for the second.

It might be thought that similar conditions surrounded the five companies in which the 10 per cent ratio was used. Likewise, the conditions surrounding the case in which the ratio of 8 was used might be thought to differ substantially from those around the case in which the ratio of 15 was used. The following table and synopses of the Advisory Reports released by the Commission on these cases whould be read, then, with a view to determining the significant differences in the record and prospects of the different corporations involved.

Table I presents selected earnings figures for the cases under review. These figures are to be used in connection with the brief discussion of each case which follows.

The first case involving the problem of a capitalization figure was *In the Matter of the Griess-Pfleger Tanning Company.*[11] The Commission decided upon a figure of $150,000 for future average earnings; to this figure it applied a ratio of 10. The "riskful nature" of the business, requiring such a ratio, was described as follows:[12]

> It is well recognized in the tanning industry, and was so testified at the hearing, that the results of operation are largely dependent upon the movement of hide prices. The record of hide prices shows that they are subject to considerable fluctuation. Largely as a result of this, not only the debtor but other companies in this line of business have shown large differences in results of operations from year to year.

The 10 per cent figure was used again in the case, *In the Matter of La France Industries.*[13] This manufacturer of upholstery fabrics for sale to furniture makers, and its subsidiary, the Pendleton Company, was deemed by the Commission to have reasonable prospects of earning $110,000 in the future. The rate adopted was judged to be fair in light of the "apparent risks" involved in the company's operations.

In a case concerning a toll bridge, *In the Matter of San Francisco Bay Toll Bridge Company,*[14] the Commission relied upon a "Report of California Toll Bridge Authority" to the State Legislature for the

> . . .opinion that a reasonable rate of return to be employed in determining the value of the prospective earnings of the Debtor is between 8% and 10%; and the only evidence in the record of the valuation hearings supports this conclusion.[15]

The Commission concluded that a rate of 8 per cent should be applied to estimated future earnings, before depreciation, of $180,000. The use of a figure before depreciation is to be questioned, although the fact that the bridge is to be turned over to the State of California in 1977 had some bearing on the point.

There is a fairly full discussion of an applicable rate of return in the case

[11] Corporate Reorganization Release No. 13.
[12] *Ibid.*, p. 8.
[13] Corporate Reorganization Release No. 16.
[14] Corporate Reorganization Release No. 21.
[15] *Ibid.*, S. E. C. Exhibit No. 7.

TABLE I

COMPARATIVE ANNUAL NET EARNINGS FIGURES FOR ELEVEN DEBTORS UNDER THE CHANDLER ACT FOR INDICATED YEARS[a]

(In thousands of dollars; ( ) loss)

DEBTOR	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
Griess-Pfleger[b]	(795)	(795)	(795)	(795)	(58)	(58)	(58)	(58)	(58)	80			
La France[c]					204	(164)	(346)	(82)	(167)	(71)			
La France[d]					412	6	(63)	217	142	164			
San F. Bay Br.[e]	(207)	(228)	(192)	(236)	(298)	(286)	(254)	(250)	(443)	(522)	(490)		
Flour Mills Am.[f]	485	597	398	487	378	527	350	(691)	(299)	(561)	(127)		
Flour Mills Am.[g]	523	650	415	519	428	304	132	(665)	(273)	(518)	(64)		
Deep Rock Oil[h]							338	767	738	(205)	89		
Deep Rock Oil[i]							675	1,023	945	(68)	120		
Porto-Rican To.[j]	2,882	1,652	273	274	(171)	17	186	223	105	58	30		
Porto-Rican To.[k]	2,812	1,582	297	238	(126)	24	131	139	96	56	29		
Minn. and Ont.[l]	3,203	1,734	(1,064)	(768)	(1,209)	(860)	(729)	(263)	381	(137)	1,219		
Higbee[m]								66	429	294	15	405	617
Higbee[n]								33	308	174	(127)	347	617
McKesson[o]								2,714	2,899	2,704	3,620	4,240	4,529
Atlas[p]								(84)	(248)	(290)	(109)	(201)	
Sayre Fisher[q]	407	240	(87)	(187)	(140)	(97)	(50)	(40)	(6)	(31)	83	112	

[a] From the respective Advisory Reports of the S. E. C. For specific numbers see the citations in the following pages.

[b] Average figures for indicated years. 1938 figure is actual for last half. All figures before bond interest and discount, Federal income taxes and profit on purchase of own bonds.

[c] After depreciation and bond interest and including dividends from Canadian subsidiary.

[d] As adjusted for non recurring items, but before bond interest and depreciation and not including dividends from Canadian subsidiary.

[e] Before deductions for amortization of debt discount and expense, but after depreciation.

[f] Before interest on notes and Federal income taxes, but after depreciation.

[g] As adjusted for non recurring items.

[h] After depreciation and depletion.

[i] As adjusted for non recurring items.

[j] According to audited reports—presumably after all charges. For Congress (subsidiary) only.

[k] As adjusted for non recurring items.

[l] After depreciation, but before interest, extraordinary items and Federal income taxes. Figures are for consolidated company with exception of a few minor subsidiaries.

[m] Before interest and Federal income taxes, but after depreciation.

[n] As adjusted for non recurring items.

[o] Profit from operations of wholesale drug department only. Estimated figures for December 1940 and all of 1941.

[p] After depreciation, but before non operating expenses.

[q] Before depreciation, depletion and local and Federal taxes.

referred to on page 336, *In the Matter of Flour Mills of America, Inc.*[16] The Commission there expressed itself as follows:

> The testimony at the hearing was to the effect that a rate much higher than 8% would be required to attract new capital to this enterprise. The past earnings record is an unfavorable one and the Debtor's future earning power is uncertain. . . .It is our opinion, having in mind the Debtor's earnings record and the uncertainties surrounding any estimate of substantial future earnings, that any rate lower than 12% would not be proper in capitalizing prospective net earnings before income taxes for purposes of determining the value of this Debtor.

The Commission referred to the standard work on corporation finance by A. S. Dewing to show that even the 12 per cent rate might be judged too low.[17]

The company under consideration in this case was a manufacturer of flour and a dealer in wheat and flour. The Commission took two years, 1937 and 1939, as a basis for making future estimates. Adjustments for anticipated economies resulted in a showing of a loss of $77,500 and a gain of $99,500 respectively in these years. Since the Commission limited itself to proving that the Trustee's estimate of $250,000 for future earnings was erroneous it did not make any estimate of its own.

The Commission returned to the use of the 10 per cent ratio in the next case considered, *In the Matter of Deep Rock Oil Company.*[18] The testimony in the case developed the idea that earnings of a petroleum producer, refiner and marketer, such as the Debtor, should be capitalized at 8 to 15 times earnings. The Commission chose 10 per cent as the proper figure. The Commission used the average, adjusted earnings for the 1935–1937 period to demonstrate that the Debtor was insolvent.[19]

In the case, *In the Matter of Porto-Rican American Tobacco Co.*,[20] the point at issue was the determination of the value of Congress Cigar Company, a subsidiary of the Debtor, in order to determine the fairness of selling it as a unit to an independent bidder. Congress marketed the popular brand of cigar, "La Palina", as well as other less well known brands. In 1936 the retail price was reduced from ten to five cents in order to meet competition and to stimulate declining sales. With possible economies in mind, the Commission decided that a reasonable estimate of earnings was $190,000, with a maximum of $300,000.

[16] Corporate Reorganization Release No. 21, p. 12.

[17] *Ibid.*, p. 19, footnote 56. Cf. Dewing, A. S., *Financial Policy of Corporations*, Ronald Press, New York, 1934, 3rd edition, p. 175. As a basis for an investor's judgment of value, industrial corporations are divided into four classes according to risk, in Dewing's opinion, as follows:

Class I	Low risk	12%–14.99%
Class II	Medium risk	15%–19.99%
Class III	High risk	20%–24.99%
Class IV	Very high risk	Over 25%

[18] Corporate Reorganization Release No. 23.

[19] *Ibid.*, p. 16.

[20] Corporate Reorganization Release No. 27.

A rate of 10 per cent was applied, which rate was thought to allow for the "highly competitive nature of the cigar industry" and its general outlook.[21]

An unusually full statement concerning the elements to be considered in choosing a capitalization rate is contained in the report on the case, *In the Matter of Minnesota and Ontario Paper Company.*[22]

The only testimony in the record with respect to an appropriate rate at which the earnings from the paper properties should be capitalized indicates that a rate of 'perhaps ten or nine per cent, or possibly eight per cent' (December Rec., pp. 89, 93, 94) should be applied to earnings before income taxes.

The rate at which the earnings are to be capitalized must be predicated upon the risks inherent in the business and the degree of uncertainty that attaches to the continuation of the earnings. An estimate of the prospective earnings of a business enterprise, even though based on reasonable and appropriate premises, is subject to risk and uncertainty of realization. If the company has a long established record of profitable operations and if no materially adverse change in conditions is foreseeable, the degree of risk and uncertainty is reduced. Likewise, if the company has an established position in an industry in which cyclical fluctuations have not been severe or which gives evidence of marked future growth, the degree of uncertainty is minimized. These characteristics are not exhibited by Kenora Paper Mills, Ltd., and the Keewatin Power Company Ltd. These companies cannot point to a record of stable and proven earning power. Furthermore, the industry has suffered severely in the past and, following 1930, perhaps as much as 60% of the newsprint capacity in Canada went into receivership.

Although these properties have operated profitably during the past four years on less tonnage than that allocated to them in the Trustee's estimate, nevertheless the risks inherent in the enterprise are such as to render a rate of capitalization of 10% the minimum rate which may reasonably be applied. That rate was the highest of the three rates suggested in the testimony as applicable to net earnings before interest and income taxes.

The company under consideration here was chiefly engaged in the manufacture and sale of newsprint, with minor subsidiary enterprises of various descriptions. The quotation above referred to only part of the company's enterprises, but the same rate and arguments were applied elsewhere in the structure.

The unusual rate of 9.8 per cent (or 7.7 per cent after Federal income taxes) was used in the case, *In the Matter of The Higbee Company.*[23] The Commission used the 1941 results as a basis for estimating future performance of the Debtor; $592,000 was adopted as a reasonable estimate of earnings. However, the Commission considered the proposed reorganization plan and concluded that the plan presupposed a value of at least $6,000,000. To approximate this valuation the above named capitalization rates would have to be applied. The Commission found that they appeared reasonable in light of figures for comparable department stores—the Debtor being a department store located in Cleveland.[24]

[21] *Ibid.*, p. 8.
[22] Corporate Reorganization Release No. 29, p. 33.
[23] Corporate Reorganization Release No. 39.
[24] *Ibid.*, p. 20.

Hence, it would seem that this rate was a *predetermined* rate rather than a *determining* rate. This matter of using the capitalization rate as a justifying device and also the matter of settling exactly on 9.8, and not 9.9 or 9.7, raise many interesting questions concerning the nicety of judgment exercised in this case.

In the case, *In the Matter of McKesson and Robbins, Inc.*,[25] the capitalization rate, 8.7 per cent, was again used as a justifying device. Other than the decision to use $3,971,500 as a reasonable estimate of future earnings, the most pertinent part of this case for our use was the following commentary:[26]

> The choice of an appropriate rate at which to capitalize estimated prospective earnings in order to determine a going concern value for an enterprise is dependent upon the risks of the industry in which the enterprise operates, the nature of its past earnings record, and the relative certainty of the estimate of prospective earnings. In this connection there were exhibits and testimony comparing the earnings of McKesson's drug operations with those of all American corporations and of certain selected industries. An examination of this material discloses the relative stability of the earnings of the drug departments. Moreover, an analysis of the nature of the drug business indicates a number of factors which make the operations of the drug departments less subject to risk than many industrial enterprises. There is a relatively steady demand for drug products; inventory write-offs in the drug department are rare as there is a high inventory turnover (in 1939 the turnover was five times); a large percentage of the merchandise sold consists of nationally advertised products with established prices and some of the wholesale drug department's business is done on consignment; seasonal fluctuations in sales are small; sales are diversified geographically and are also diversified both as to products sold and customers; and purchases are made from thousands of suppliers so that there is no dependence on one or a few sources of supplies.
>
> Although any long term growth would depend largely upon increases in population, it appears, in view of the above facts, that it would be appropriate to capitalize earnings of the drug departments at a relatively low rate as compared with industrial enterprises generally. Since there are no other enterprises closely comparable to McKesson, the Trustee has examined the rates at which the securities markets capitalized net earnings before interest charges and income taxes during the period 1935 to 1939 of such distribution industries as department stores, mail order houses, variety chains, and food chain stores. (Trustee's E: 22.) It was observed that the average rates of capitalization for these enterprises ranged between 7.6% and 10.1%.

The highest rate used by the Commission to date was in the case, *In the Matter of Atlas Pipeline Corporation.*[27] The Commission did not rely upon the earnings as given in Table I, but chose a five months period just preceding the date of the hearings as a basis for future estimates. A figure of $130,000 was chosen as a maximum estimate, although the Trustee had arrived at a figure of $262,916.[28] To this figure of $130,000 the rate of 15 per cent was applied by the Commission, with the caution that the rate should certainly not be less than 12 per cent. The Trustee and the General Manager had each testified that the

[25] Corporate Reorganization Release No. 41.
[26] *Ibid.*, pp. 16 and 17.
[27] Corporate Reorganization Release No. 42.
[28] *Ibid.*, pp. 11 and 19.

rate should range from 8 to 20 per cent in one case and from 8 to 14 per cent in the other; the rate actually used by them was 10 per cent.[29]

The last case to be reviewed is *In the Matter of Sayre and Fisher Brick Company.*[30] This New Jersey concern, manufacturing a "quality" product, was judged to have reasonable prospects of earning $100,000. The Commission commented as follows:[31]

> The appropriate rate at which prospective earnings are capitalized in valuing a going concern is dependent upon the risks to which the enterprise is subject. Studies of the rates at which the market capitalizes the earnings of representative companies identified with building construction activity indicate that rates of more than 10% are characteristic and that rates above 15% are not uncommon. The witness for the Commission testified that in his opinion a 12% rate applied to earnings before income taxes was the minimum that should be used. The witness for the bondholder previously referred to used a rate of 8½%. Because of the extreme fluctuations in building construction and the highly competitive conditions in the industry, an 8½% rate appears inadequate. The 12% rate appears to us reasonably to reflect the relatively high risks of realization to which the future earnings of this enterprise are subject. Application of this rate to the earnings estimate of $100,000 results in a value of about $830,000 for the assets employed in the debtor's business.

Such is the experience of the Commission to date as far as its use of capitalization ratios in connection with the Chandler Act is concerned.

The action taken by the several Federal Courts relative to the above cases, after the report of the Commission had been made, is interesting.[32] Such action is summarized as follows, the figures in parenthesis being the capitalization ratios:

I. Court approval of plan recommended by Commission—
  (10) Porto-Rican American Tobacco Company
  (9.8) The Higbee Company
  (8.7) McKesson and Robbins, Inc.

II. Court approval of plan modified according to Commission recommendation—
  (10) Minnesota and Ontario Paper Co.

III. Court approval of plan without modification according to Commission recommendation—
  (10) Deep Rock Oil Company

[29] *Ibid.*, p. 37.
[30] Corporate Reorganization Release No. 47.
[31] *Ibid.*, p. 8.
[32] Information relative to court disposition is derived from a letter to the writer from the Director of the Reorganization Division of the Securities and Exchange Commission, dated November 28, 1941. In most cases the orders approving or disapproving of plans and the Commission's report were not supplemented by written opinion.

IV. Court approval despite Commission recommendation for disapproval—
- (10) Greiss-Pfleger Tanning Company
- (10) La France Industries
- (8) San Francisco Bay Toll-Bridge Company
- (15) Atlas Pipeline Corporation
- (12) Flour Mills of America, Inc.

V. Case pending—
- (12) Sayre and Fisher Brick Company

It must be noted that matters other than the capitalization rate were involved in these cases and that court approval did not hinge entirely on the rate. However, examination of the cases and rates above would seem to indicate that the courts are finding value where it is not found by the Commission.

A striking fact to be found in the above record of Commission action is the concentration on the use of the ratio of 10. This particular figure is found five times. In view of the repeated emphasis placed upon the degree of risk inherent in the particular business under consideration, it would seem that the Commission has, in effect, said that a leather tanner, an upholstering manufacturer, a petroleum producer, refiner and marketer, a cigar manufacturer, and a newsprint producer are all facing the same degree of risk. It is questionable if specific data can be found which will either definitely support or definitely destroy this position. However, the actual performance of the different industries involved from year to year should afford some indication of the relative degrees of risks among the different industries. It is with the idea of presenting figures to show the fluctuations in operations which the different industries face that Table II is presented. It is felt that such fluctuations indicate to a degree the risks to be faced. The particular industries selected do not necessarily coincide exactly with any or all of the five companies to which the Commission applied the 10 per cent rate. The wide divergence between the extremes of fluctuation of such items as total assets and net profit for the groups presented can lead to no conclusion other than that the risks within the different industries vary a great deal. The shortcomings of the data presented cannot refute such a conclusion unless it can be demonstrated that the lack of correspondence between the companies studied in this paper and the companies included in the table is of such a degree that the indicated variations in fluctuations are exactly eliminated.

Since it is the intention of the Commission to establish these erstwhile bankrupt corporations on a sound, going-concern basis, an examination of the capitalization ratios found for non-bankrupt concerns might shed some light on the choice of an appropriate ratio. Two phases of the matter immediately present themselves, first, the ratios between earnings and capital and, second, the yield on the market price of the securities involved. Since there is a certain type of relationship between governmentally regulated public utilities and the corporations which pass under the scrutiny of the Securities and Exchange Commission,

i.e., the presence of a government sanction on the ratios involved, the field of public utilities will be considered first.

TABLE II

DATA ON SELECTED INDUSTRY GROUPS 1934–1938[33]

(Figures in millions of dollars)

	1938	1937	1936	1935	1934
Oil Industry (17 Cos.)					
Total Assets	6,966	6,881	6,338	6,213	6,212
Volume of Business	3,775	4,122	3,632	3,266	3,069
Net Profit after all Charges	257	503	362	226	144
Dividends Paid	179	261	214	131	123
Total Net Profit to Invested Capital (19 Cos.)*	5.87%	10.20%			
Upholstering Industry (6 Cos.)					
Total Assets	57	58	64	56	48
Volume of Business	28	36	31	27	23
Net Profit after all Charges	0.7	3.3	8.2	6.5	0.5
Dividends Paid	1.0	3.6	5.4	1.7	1.0
Total Net Profit to Invested Capital*	4.25%	12.02%			
Paper and Allied Products Industry (23 Cos.)					
Total Assets	590	635	579	581	574
Volume of Business	333	389	348	300	265†
Net Profit after all Charges	12.3	33.1	23.0	10.8	8.1
Dividends Paid	10.3	21.0	13.4	8.2	5.9
Total Net Profit to Invested Capital (35 Cos.)*	4.22%	8.48%			

* Total net profit before prior claims, interest and income taxes to invested capital at book value based on year end figures.

† Exclusive of sales of Lily-Tulip Cup Corporation which were 4 millions in 1935.

[33] *Survey of American Listed Corporations*, Registrants with the Securities and Exchange Commission under the Securities Exchange Act of 1934 at June 30, 1939, from Data Collected on Work Projects Administration Projects Sponsored by the Securities and Exchange Commission. Oil Refining and Distributing with Producing Facilities—Assets over $50,-000,000 from Vol. II, p. 5. Upholstery and Miscellaneous Textiles, Vol. IV, P. 1-g. Paper and Allied Products, Vol. IV, p. 1-h.

II

The question of the proper rate of return on capital which is to be allowed is of prime importance in a regulated industry. An inquiry into the use of capitalization ratios in this industry, then, must examine, first, the reports of the commissions and courts and, secondly, the actual performance of the companies.

The percentage return on capital allowed by the courts and commissions has declined from a high of a little over 8 per cent in 1922 to slightly less than 6 per cent by the end of 1940.[34] The following is the opinion of an expert in the field of public utilities relative to the reasons for this over-all decline:[35]

I think it fair to say that the prevailing low interest rate has had the effect of cutting down the amount of return allowed by courts and comissions in rate cases. However, there are other related factors, such as diminishing cost of materials and other operating expenses (except taxes, which have been going up very sharply) and the diminishing return being realized on other types of securities in unregulated industries.

TABLE III

PROFITS OF LEADING CORPORATIONS FOR THE YEARS 1936–1940

Average rates in per cent of net profits to net worth. Net profits are as reported, after depreciation, interest, taxes, and other charges and reserves, but before dividends. Net worth includes book value of outstanding preferred and common stock and surplus account at beginning of each year.

NO. OF COS.	GROUPS	1936	1937	1938	1939	1940†
95	Electricity, Gas, etc.*	5.9	6.5	5.8	6.7	6.9
29	Telephone and Telegraph	6.6	6.6	5.8	7.3	7.8
124	Total public utilities	6.2	6.6	5.8	6.9	7.2

* Figures refer to shareholders only. Because of the large proportion of bonded indebtedness, actual return on the property investment is less than the above.

† The number of companies included in the report for 1940 is 104 and 33, respectively.

Recently, the Federal Power Commission, in a very important case covering the Chicago District Electric Generating Corp., ruled that 5½ per cent return was fair and reasonable. In an opinion delivered a year ago concerning the Safe Harbor Power Corporation it allowed 6 per cent.[36]

The actual operating results in the utility industry have not deviated far from the figures established as fair by the regulatory bodies. Table III shows the results for the past five years.[37]

[34] *Public Utilities Fortnightly*, August 29, 1940, p. 283, Graph: "Amount of Return Allowed by Courts and Commissions in Cases Reported in Public Utilities Reports" (Staff Compilation). Information supplemented by letter from the Associate Editor of the *Fortnightly*, dated October 25, 1941.

[35] Associate Editor of the *Fortnightly*, *op. cit.*, given in response to a query concerning the effect of the decline of interest rates on commission opinion.

[36] Institutional Utility Service, Inc.; letter from the Vice President in October, 1941.

[37] The National City Bank *Bank Letter*, September, 1940, p. 101; the figures for 1940 from page 44 of the April, 1941, issue.

Of interest in this connection are the results of an individual utility company's operations.[38] The "investment" figure in the following tabulation refers to long term debt as well as net worth. The gross income shown is after all charges, but before interest payments.

	1936	1937	1938	1939	1940
Investment ($ thousands)...............	117,749	118,385	118,371	119,287	130,729
Gross income as % of investment.......	7.2	7.3	7.0	7.6	7.5

This particular company shows a marked advantage over the performance of the industry as a whole as indicated in the figures from the National City Bank *Letter*. A part of the discrepancy may arise from the difference in the relationships shown, although the inclusion of long term debt in the National City Bank calculations would tend to reduce the rates of return given—hence the discrepancy would become greater. The common stock of the individual utility referred to ranged from a high of 115 to a low of 102¾ during the 1936–40 period; it yielded approximately 6.6 per cent on the basis of the closing October, 1941 price. The annual dividend has been $4.50.

III

The number of companies in the non-regulated field is so great that average results are exceptionally misleading because they hide the extreme fluctuations. However, the National City Bank[39] tabulation for approximately 2,480 companies for the three years 1936 to 1937 and 2,590 companies for 1939 and 1940, including public utility and transportation companies, shows the following percentage returns: 1936–7.3; 1937–7.2; 1938–3.8; 1939–6.3; and, 1940–7.4.

The range in yields of common stocks listed on the New York Stock Exchange is very wide. The Sunshine Mining Co. stock sold at a price of 4¾ on the last of October, 1941, to yield 21.05 per cent on the basis of a 1941 dividend of $1.05. This was probably the highest yield, as a perusal of any summary of stock statistics will show; however, it certainly was not indicative; yields of four to eight per cent being most common. It is to be recalled that in the opinion of most commentators, the current price quotations on the stock market are very low in view of the earnings records.

IV

Before concluding this investigation of current usage of capitalization ratios, it will be of interest to see what financial writers have to say on the theoretical side of the subject.

[38] Figures and ratios supplied by Institutional Utility Service, Inc. on a particular company, the name of which is not given by request.

[39] *Op. cit.* See preceding page for description of the component parts of the ratios. The inclusion of public utility and transportation companies in the calculations does not affect the result appreciably because of the relatively small number of such companies and because of the near uniformity in the matter of returns between such companies and other industrial companies.

We have already made reference at another point[40] to the Commission's citation of Dewing as an authority for a schedule of capitalization rates. Perusal of the context at the point cited fails to reveal any theoretical discussion of the principles of capitalization. However, Dewing does refer to such a discussion by Badger.[41] Hence, rather than rely on Dewing's pragmatic standards, which, as will be shown below, cannot be said to apply to present day conditions because of the change in the interest rates applicable to industrial securities, it is necessary to investigate the principles laid down by Badger.

Badger approaches the matter of valuation from the standpoint of a security holder who has no market price by which to gauge the value of his securities, e.g., securities of closely held corporations. Having first considered securities of an investment calibre, Badger discusses the valuation of speculative bonds.[42] He proceeds on the stated assumption that there is a definite relationship between the earning power of the issuing corporation and the value of the securities. He comments as follows:[43]

> In the first place, industrial bond issues of an investment status are at the present time (1924) selling at a yield varying from 5½ per cent to 6½ per cent, in some instances running as high as 7 per cent. Normally, bondholders insist that the issuing company shall show average earnings equal at least to two times fixed charges, in the case of industrial companies, before they will consider purchasing at a price which implies an investment status. . . .We may assume that the bondholders in a corporation which consistently fails to earn fixed charges are headed toward a position of ownership therein. . . .Their reaction toward earnings as a source of value, therefore will then conform to that of stockholders in a non-defaulting concern. And we will presently see that the ratios at which common stockholders generally capitalize earnings into a market value for ownership equity vary between 12 per cent and 30 per cent, with the lower limits of fluctuation around 15 per cent. . . .Where the earnings available are two or more times interest charges, the value of the bond should be appraised on the basis of comparative yields, but where average earnings are less than 100 per cent of requirements, the capitalization method should be applied, with a rate of 11 per cent to 14 per cent, depending upon the type of bond involved.

It is apparent that Badger establishes a definite relationship between the interest rate and the rate of capitalization, the relationship varying with the individual situation. He suggests that the proper capitalization rate for a company which fails to earn its fixed charges should vary from 12 per cent to 30 per cent. This means that the capitalization percentages range from one and five-sevenths times the rate of interest (7 per cent compared to 12 per cent) to five and nine-twentieths (5½ per cent compared to 30 per cent).

[40] *Supra*, p. 337. Reference is also made to Bonbright, *op. cit.*, who devotes several chapters to the subject of valuation under conditions of bankruptcy. Cf. Chapters XXII and XXV. However, on page three, above, we have already noted his opinion of the capitalization of earnings method for determining valuation.

[41] Badger, R. E., *The Valuation of Industrial Securities*, Prentice Hall, New York, 1920.

[42] *Op. cit.*, Chapter V.

[43] *Op. cit.*, p. 53. Date in parenthesis added by present writer. Copyright 1925, by Prentice Hall, Inc., used by permission.

The above argument may be reduced to the formula that the capitalization ratio reflects two things, the appropriate rate of interest and the desired protection against contingencies. Thus, if at any given time we desire to determine the ratio applicable, we must inquire as to the interest rate and as to the margin of protection required. Such an argument is highly convincing. Individuals place their funds in business enterprises for the purpose of securing a return. The return which they receive will be basically determined by a competitive rate of interest. There are modifications to this principle to the extent that a high degree of management enters into their commitments. However, in the case of corporate securities such a return is small, if not absent, due to the fact that those in managerial positions are paid specific salaries for their services. Hence, we may conclude that the significant difference between the return to bondholders and to stockholders lies in the fact that the return to the latter is residual. If there are other important elements to the capitalization ratio they are not apparent.

We must inquire, then, as to the rate of interest which is applicable under present day conditions and as to the degree of protection desired by stockholders.

In 1924 the expected return, as measured by the rate of interest on industrial bonds of an investment status, varied from 5½ per cent to 7 per cent, as pointed out by Badger. In January, 1941, to choose a date at random, this return varied from 2.84 per cent on bonds of "AAA" status to 4.75 per cent on those of "Baa" stutus.[44]

Information concerning the degree of protection desired is not easily obtained for the reason that this factor will vary according to the degree of risk faced. Also, the market does not always act rationally in regard to the prices it pays for common stocks.[45] However, it is possible to discover some guides as to the relationship between earnings and evaluation which should exist in a scientific approach, arbitrary guides it is admitted, but guides nevertheless.

Graham and Dodd[46] set up the outside limit of twenty times earnings as being the most that will be paid for an investment common stock—a 5 per cent basis. If a stock has the basic requirements of an investment it may be bought on an investment basis at a price which might range as high as the figure suggested. They suggest an average figure of 12 or 12½ times earnings as a medium figure for a company with "neutral" prospects. That is, in terms of percentages, the capitalization rate should be around 8 or 8⅓ per cent, or a little less than three times the current rate of interest.

Badger, it will be remembered, recommended capitalization on the basis of two times to five and a half times the current rate of interest. This is to be compared to Graham and Dodd's three times current interest rate basis. These two views may be reconciled if it is recognized that the former is speaking

[44] Monthly *Bulletin*, Board of Governors of the Federal Reserve System, Washington, February, 1941, p. 147. On the total of 120 bonds reported on by Moody's service and recorded in the *Bulletin*, the return for the week ending January 25, 1941, was 3.36 per cent. On 40 industrial bonds alone it was 3.10 per cent.

[45] Graham and Dodd, *op. cit.*, p. 25.

[46] *Op. cit.*, p. 532. Also, Appendix Note, p. 784.

largely of speculative situations and the latter are referring to investment or "neutral" situations. Also, the margin of protection desired at the time Badger was writing (1924) apparently was less than at the present time. Thus, he spoke of normal investment bond requirements as requiring earnings to be equal to two times bond interest. Today, bond interest must be earned three times before an investment status is reached.[47]

The problem of drawing conclusions from this discussion of the proper capitalization figure for common stocks is difficult. As pointed out above, the rate which is selected in any given case must be arbitrary. However, to place the matter on a percentage basis, the rate may range as low as 5 per cent and may range as high as 8 or 10 per cent. It is to be noted that this theoretical discussion of the principles underlying capitalization of earnings correlates fairly well with actual market operation. It is also to be noted that the rates discussed in the latter part of this paper have been related to going concerns, whereas the rates used in the S. E. C. cases were not always of such nature.

V

About the most that can be said by way of summary to this investigation of the use of capitalizations ratios is that little has been added to the field since Bonbright concluded in 1937 that "tradition and guesswork" entered into most calculations. However, the idea that the value of property, be it physical, as in the case of a machine, or intangible, as in the case of securities, depends on future services remains as a fundamental factor. The desirability of developing a formula for relating particular services to particular values remains challenging. A line of pursuit suggested by this paper is that there is a functional relationship between the rate of interest and the capitalization ratio which should replace the "tradition" of 10 per cent or 6 per cent. This function is comparable to the traditional "risk rate" of interest. Once this rate, or function, has been determined for the individual situation, its application to the prevailing interest rate will produce the proper capitalization ratio.

It is to be hoped that the Securities and Exchange Commission will be able to contribute to the theoretical literature on the subject. A statement of principles to be used in determining the degree of risk present in a given situation, indicating the important variables and factors to be taken into consideration, would be welcome to those persons preparing plans of reorganization and also to academic students of financial problems.

[47] Graham and Dodd, *op. cit.*, p. 128; Jordan, D. F., *Investments*, Prentice-Hall, New York, Third Revised Edition (Revised to January 1, 1937), 1940, p. 191; Field, Kenneth, *Introduction to Investment Analysis*, Ronald Press, New York, 1940, p. 98; Badger, Ralph E. and Guthmann, Harry G., *Investment Principles and Practices*, Prentice-Hall, New York, Revised Edition, 1939, p. 346.

Economic Fluctuations in the United States. By Edwin Frickey. Cambridge: Harvard University Press, 1942. Pp. xxi, 375. $5.00.

In this study Frickey examines a number of important economic time series over the period 1866–1914, including several indexes which he has carefully constructed, with the object of discovering, first, the elements of which time series fluctuations are composed, and second, whether a satisfactory method of statistical analysis can be devised.

The technique that Frickey adopts in pursuing his first objective is mainly the study of link relatives of quarterly data, annual data, 2-year averages, and so on. An alternative approach, that of first differences, is soon discovered to be inadequate. The conclusions of this part of the study are: (1) there is one and only one pattern of short-run fluctuation permeating our industrial and commercial life; (2) for the series investigated the variations are resolvable into cyclical movements, and smooth, continuous, gradually changing secular trends; (3) the two types of variations are logarithmically additive.

Having established these propositions to his satisfaction, Frickey suggests a novel method of separating the trend from the cycle. Instead of adjusting the deseasonalized data immediately for trend, he adjusts them first for cyclical variations. After so doing the fitting of a trend is a simple process, since the fluctuations around the trend line are small and of a random nature. The index of cyclical movements, which Frickey uses in adjusting for cycles, is not the index of the particular series in question, but represents the cyclical movements of his index of industrial and commercial production. The use of such a method, he warns us, is justified only when the short-term pattern of the particular series is closely correlated with that of production in general. Before the cyclical index of production can be used as a deflator it is necessary to adjust it so that the amplitude of its fluctuations is the same as those of the individual series. This is done by finding the average deviation of annual (or sometimes quarterly) link relatives of the individual series and of the production index, and applying the ratio of the two average deviations to the cyclical index.

Before the cyclical index of general production can be obtained, however, it is necessary to fit a trend to that series. Taking successive differences of the logarithms of his original data, Frickey discovers that there is no trend in his second differences. Hence he uses a logarithmic parabola. This curve has the property that the link relatives show a constant rate of retardation. This choice of curve, however, does not imply a "law of growth." It is merely a fact that this particular series behaved that way.

The trends for most of his other series are not so simple as for his production index. Usually he finds it necessary to fit, and splice together, a series of trends to the individual series which have been approximately adjusted for cyclical fluctuations. A second method of trend fitting, which is useful as a check on the

first method, involves using the relationship between link relatives of the particular series and of a general series which has a horizontal trend.

Frickey's methods are simple mathematically; but they involve so many adjustments, so many steps, and so many alternate procedures that they cannot be described in detail here. His conclusions are based on inspection of a large number of charts of analyzed data. Checks on conclusions are afforded by showing that alternate procedures and different sets of data yield harmonious results.

The reviewer, however, is unable to harmonize his conclusions with his statistical results in one case. Frickey finds (p. 150) that the average period of the wave-like swings (cycles?) of his production index is about 40 months. However in another place (p. 243) he shows that his production index establishes 7 lows after crossing the trend line on the way down. Furthermore, these seven sub-periods are clearly visible on most of his charts, and he uses them in some of his analyses. How does the presence of these two types of fluctuation harmonize with his statement that there is one and only one pattern of short-run fluctuation?

The author's choice of a logarithmic parabola as a production trend is also open to question. He prefers this type of trend to the Gompertz or logistic on the ground that statistical tools do not enable us to draw more refined conclusions from his data. The reviewer, however, does not believe that it is a question of refinement of conclusion, but of type of conclusion. The logistic curve, for instance, contains no more constants than does the logarithmic parabola, and also can be translated sensibly into words. Furthermore, as between two types of trends equally simple, and meeting objective tests equally well, the one which is not obviously contrary to economic liklihood is to be preferred. The logarithmic parabola must eventually turn down if extended into the future, a fact which casts some doubt upon its validity. Fortunately, however, for the period under consideration the choice of some type of trend other than the logarithmic parabola would not make any important difference in his final results.

Finally, there is no assurance that trends fitted to his cyclically adjusted data are as valid as trends fitted carefully to the original data. How to adjust the amplitude of the deflating series is a difficult one. Should we equalize for the two series the amplitude of quarterly changes, yearly changes, cyclical changes, or of the changes from peak to trough of Frickey's seven sub-periods? It is not inconceivable that different methods of adjustment might materially alter the character of the trends.

The writer is to be commended for calling attention to the uncertainties inherent in fitting trends to economic time-series, to the danger of placing too much reliance on the method of least squares, and to the need of a reconsideration of the whole subject of the statistical analysis of time series. Whether there are movements intermediate in length between the business cycle and the primary trend (Kondratieff long cycle?) is still an unsettled question. More experience with Frickey's method, and other similar methods, of trend analysis is needed before we can be sure that such methods have wide applicability.

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The Theory of Competitive Price. By George F. Stigler. New York: The Macmillan Company, 1942. Pp. vii, 197. $3.00.

The author states that "This is a preliminary edition of a textbook in advanced economic theory" (p. v). He limits his treatment quite definitely to competitive price, but says that he later hopes to expand the work and treat of "imperfect competition, multiple products, capital theory, and certain other topics." His objective is not that of comprehensive treatment but "rather that fundamental concepts are presented with more precision and that there is greater emphasis upon technique" (preface). His technique might be called Walrasian or Lausanne, and precision is sought through the use of geometric figures, equations and formulae.

In many places this mathematical technique is used to excellent advantage with results more precise than normally reached by non-mathematical treatment. For example, in Chapter IV on "Quantitative Relationships" there is an excellent figure or diagram with curves and supplementary explanation showing why "when average product is at a maximum, marginal product equals average product" (p. 50). There is also an excellent treatment of "Elasticity at a Point" (pp. 52–3). This is a work of precision which has long been needed. The reviewer has often seen a straight line demand curve drawn at a 45 degree angle from the OY axis down to the OX axis as illustrative of a demand curve with elasticity equal to unity. Of course it is if it be a logarithmic curve, but normally it is not so treated. Such a curve has elasticity far greater than unity on that part of the curve near the OY axis and elasticity far less than unity on that part of the curve near the OX axis. Demand curves as drawn seldom have uniform elasticity throughout. Likewise, the elasticity of demand of actual buyers in the market is seldom, if ever, uniform at all possible prices. Dr. Stigler has done a neat piece of work in treating "elasticity at a point" and finding the equation for it in a space of less than two pages.

Aside from the geometric figures and formulae, the book is not especially well written. Simple ideas are at times stated with attempts at profundity. For example, in defining economics he says "Economics is the study of the principles governing the allocation of scarce means among competing ends when the objective of the allocation is to maximize the attainment of the ends" (p. 12).

It would be possible to question the efficacy of applying so uniformly the discipline of mathematics—an exact science—to the theory of economics—an inexact science. But the student of advanced theory probably needs to use all the disciplines in mastering the science, so on these grounds a mathematical approach is justifiable. But, even the mathematical scientist may err, and the reviewer feels that Dr. Stigler has done so in his treatment of "Constant Cost Industries." The author attempted to show that it is perfectly possible for the individual firm to experience increasing costs while the industry expands under constant costs, provided competition obtains and the field is open to new firms. This is true. But he permits himself to say that under such conditions, "if the output of the industry is to increase (owing perhaps to an increase of demand), it will take place primarily through an increase in the number of firms, and under constant costs it will take place only in this way" (p. 162). Now, the reviewer

submits that if individual firms can expand output according to the principle of constant costs, then it is a matter of indifference whether an increased demand is met by an increase in the number of firms or in an expansion of output by the firms already operating.

By way of final statement, it may be said that the work is a compact handbook seeking precision in economic theory by mathematical technique.

Louisiana State University H. L. McCracken

Social Goals and Economic Institutions. By Frank D. Graham. Princeton: Princeton University Press, 1942. Pp. xxii, 273. $3.00.

Human power and freedom are the social goals which Graham holds to be most significant for the aspirations of the human race. Many other social goals such as security, assurance of the right to work, affluence, and happiness are deemed to be included in the embrace of "power-*cum*-freedom." He holds to the view that the state should be used as an instrument to maximize rather than to limit power and freedom.

Graham looks upon profits as the "key to the release of economic power in a volitional economic system." In order that there may be a satisfactory working of the economic system, there must be a steady maintenance of the general level of profit prospects "at a height sufficient to induce enterprise in volume adequate to provide full employment." The recurrence of periods in which there is a general desire for liquidity prevents the steady maintenance of profit prospects and therefore of full employment. While the wave of desire for liquidity may strike people in general, Graham holds that the bulk of the hoarding of cash is done by the enterprisers themselves. Instead of attempting to frustrate the desire for liquidity, Graham advocates Mr. Benjamin Graham's proposal for a system of monetary issue which would, he believes, enable enterprisers and others to increase the liquidity of their assets without harmful social consequences. Under this plan, the Treasury would issue legal-tender currency against the deposit of warehouse receipts for legally defined units composed of definite quantities of "basic, storable, raw commodities." It is the expectation that the possibility of disposing of such commodities to the monetary reserve will induce the producers to continue production rather than to discharge their employees in periods when liquidity preference increases. When a reverse tendency occurs, the accumulated commodities may be claimed by the holders of the notes and inflationary rises in prices thus will be checked. It is expected that the section of the economy directly affected will be large enough to have an appreciable steadying influence on the whole economy.

In criticism of Graham's plan, it may be pointed out, first, that an ideal solution of the problem would prevent recurrent periods of decline in consumption rather than piling up of large stores of unused commodities and, second, since the decline in production during a period of depression is not as characteristic of agriculture as of other parts of the economy, his own original plan for buying from manufacturers "standard, storable, finished goods" would be preferable, from an economic, if not from a political, viewpoint. Finally we may well expect that the lessons learned in creating full employment by lavish

war expenditures will give a more satisfactory clue to the answer to the problem than can be obtained from contemplating the evils of the depression period.

In the second half of his book, Graham deals with the theory of distribution, and besides joining in the general chorus of disapproval of inherited fortunes, undertakes to justify rent as a share in distribution, to refute the Keynesian interest theory, and to dampen the almost universal enthusiasm for progressive taxation. He suggests finally the organization of a corps of experts to assist society by preventing the shelving of desirable proposals for social amelioration.

Graham's book was undoubtedly intended to provoke debate on the topics which he discusses with such enthusiasm and intelligence. In the interest of social well-being, it is to be hoped that the challenge will be accepted.

College of William and Mary S. D. SOUTHWORTH

Problems of a Changing Social Order. By John M. Gillette and James M. Reinhardt. New York: American Book Company, 1942. Pp. 824. $4.00.

Problems of a Changing Social Order is a marked improvement over *Current Social Problems* which appeared in 1933 and which was revised in 1937. Much of the original content of this volume appears today under a new title with much new and significant material.

In addition to the things one always expects in a social problems book such as discussions of poverty, health conditions, defectives, crime and family disorganization, the authors devote a number of chapters to an appraisal of city life; the nature, functions and decline of villages; to the socio-economic impact of a rapidly changing culture upon farm life, and the more important problems of American minority peoples. Concluding chapters are devoted to the changing democratic state and to the international social order.

The approach to the above topics and problems by way of the social processes with the authors holding that the "ultimate goal of all societal study and investigation is the description and analysis of social problems" to the end that *understanding*, *prediction* and *control* may emerge. The latter goal is important and to this end the authors devote much space to both remote and recent attempts to mitigate social problems.

He who writes a text on social problems faces a major task in the selection of topics. The authors have done a good job in the selection of topics although they have followed the somewhat questionable index of "major public interest" as the most important guide.

Problems of a Changing Social Order is attractive in form and is well written. It could have been better documented, although the documentation is adequate for general readers and undergraduate students.

University of Tennessee WILLIAM E. COLE

The Theory of Capitalist Development. By Paul M. Sweezy. New York: Oxford University Press, 1942. Pp. xiv, 398. Price $4.00.

Marxian economic theory, somewhat weak in the English speaking world, has long been a robust part of economic thought in continental Europe. Pro-

fessor Sweezy, in his brilliant authorship of the present volume, had in mind a work that would bring American theorists face to face with the most recent thought upon Marx's position as an economic thinker. In addition, Sweezy, from his own resources, has clarified the methodological procedure of Marx and has added economic definition to selected statements from Marx in an attempt to rescue him from the critical hands of both capitalist and revisionist writers. The result is a formidable, though not forbidding, contribution to the effort to establish the validity of the Marxian system.

The author is convinced—and in this conviction resides much of the Marxian appeal—that economics is rightly the study of interpersonal relationships in the field of production and distribution. In that he subscribes to economics as a social science and denies that the subject has vitality when considered as a science of relationships between persons and things. Within this definition one of the great problems of procedure in the field of theory is that of methodology. Marx's problem was to "lay bare the economic law of the motion of modern society." The secret of this problem he saw in the study of the "laws governing changes in the mode of production." Despite the large historical content of Volume I of *Capital*, Marx attempted to find solutions through the use of abstractions governed in their selection and application by the limits of the defined problem. Within the boundaries thus set Sweezy finds that Marx's work assays high in pure metal.

The investigation naturally clusters, with logic and persuasiveness, about the problems of value and surplus value, the rate of profits, the determination of wages, the nature of crises in the capitalistic system, and a thorough examination of the controversial literature on the "breakdown" theory. While a thorough knowledge of Marxian principles will not be excess baggage in following Professor Sweezy, it must be admitted that even in his most technical discussions the author moves in such a deft manner that a non-professional follower need not be winded. Professionals will be particuarly interested in Sweezy's denial of Böhm-Bawerk's contention that Marx's theory of value is contradicted by his theory of production price.

Applications of Marxian theory to contemporary social movements in Europe give Sweezy an opportunity, which he brilliantly exploits, to analyse the economic impulses underlying fascism. He sees fascism as an attempt through centralization to escape the inner contradictions of capitalism. This attempt has failed for fascism like capitalism is incapable of "utilizing the means of production for an ever expanding system of the life process for the benefit of the society or producers."

It is likely that world events may bring an intensification of the present examination of economic and social systems. Marxism is likely to profit from the situation in Europe. This would come not from the economic soundness of the Marxian views but from the social persuasiveness of his system. For an examination of these economic views as an approach to an understanding of the dynamics of the system, this new book is without a present peer.

The University of North Carolina JAMES L. GODFREY

Farm Management in the South. By Robert L. Hunt. Danville, Illinois: The Interstate, 1942. Pp. 566. $2.20.

The conventional textbook in farm management has all too frequently been written for a national audience but from a regional point of view. Professor Hunt makes no such mistake. Instead the very title of his latest book proudly proclaims that it treats of farm management *in the South* and a preface declares that one purpose of the book is to "focus more thinking on the existing Southern problems" and to "serve as a tool to fashion a more efficient and profitable agriculture for the farmers of the South." Having thus stated his aims, the author proceeds to apply the broad principles and methods of the subject to the conditions peculiar to Southern agriculture.

The book consists of 23 chapters, an appendix, a glossary of terms and a selected list of references, plus the usual index. It is well written and fully illustrated. The data are currently valid and give evidence of having been carefully selected although a little "heavy" on the Texas side. The textual comments are clear and to the point. A list of questions at the end of each chapter serves to emphasize items of greatest interest and to facilitate discussion. In addition to the usual topics treated under the heading of Farm Management, chapters are included on "Conservation," "Cooperation," "Farm Rental Contracts" and "Planning Farm Home Consumption." A chapter on "Economic Information as a Guide to Farm Adjustments" is particularly well handled. The author is to be commended likewise, for the capable and complete manner in which he treats of the characteristics of southern agriculture and of present day farming.

In general the various chapters follow one another in logical sequence and for the most part the author has succeeded in tying them together very effectively. While this form of treatment is not uncommon in texts of this kind, it is suggested that a more pronounced organization of the subject matter would have added to the effectiveness of the text. For example, several chapters, widely separated, treat of the factors affecting farm income.

The book was written primarily for the use of pupils enrolled in vocational agriculture classes and with a view to its being of immediate benefit to the approximately 200,000 in southern schools. These considerations, however, should not restrict its use either to the public schools or to the South. The contents will be found of interest and value to students of the subject in all parts of the country and at all levels of education.

Clemson College G. H. Aull

The Shifting and Incidence of Taxation. By Otto von Mering. Philadelphia: The Blakiston Company, 1942. Pp. xiii, 262. $3.25.

The publisher commends this study as "a rigorous analysis of the principles of tax shifting, thoroughly modern in economic theory, inclusive of the most recent important contributions to the literature of the subject." The author suggests too that his opportunity to make a fundamental contribution arises from "important developments in economic theory and taxation studies during

the last fifteen or twenty years" (p. v). In the purpose of marshalling the recent developments of economic and public finance theory to ascertain their bearing on tax incidence, the writer has achieved considerable success. However, new contributions have not led to adoption of a new methodology. The approach is essentially classical. At many points, however, the author effectively states conclusions without much explanation of the reasons for them (e.g., the consideration of motor fuel, railroad, other public utility, and poll taxes, p. 239).

After a general introduction, Professor von Mering undertakes an examination of the "General Theory of Tax Shifting" (Part I, pp. 17–141). The last half of the volume is devoted to "The Shifting of Particular Taxes" (Part II, pp. 145–242). Appended is a methodological note, largely mathematical. In "Part II, Chapter 9, "taxes on trade and industry," including "the sales tax" the retail luxury tax," "internal revenue taxes," and "industrial tariffs" are considered. In Chapter 14, "taxes on transactions" receive attention. The final chapter on "other taxes" is devoted, among other things, to insurance premium excises, gasoline taxes, and public utility gross receipts taxes. The arrangement in Part II is unusual, and the reason for it is not clear.

In the main, the author's conclusions are orthodox. On the other hand, several conclusions not consistent with prevailing viewpoints are reached; and perhaps allusions to some of these may be suggestive of the author's viewpoint. (1) The motor fuel tax is regarded "as an example of the transformation of a tax that has been shifted backward" (p. 239). (2) With respect to personal and corporate income taxes it is concluded that "the foregoing discussion has shown[1] that income taxes can be shifted and that the opposite opinion is an illusion" (p. 214). (3) It is believed that railroad and public utility tax incidence is controlled by regulatory agencies (p. 239). (4) Respecting the death taxes, the categorical conclusion is stated that "a relatively high inheritance tax imposed in one state or province tends to reduce the supply of capital." This last case is cited not so much because of its novelty as because it illustrates a consistent failure to give as much weight to the mobility or lack of mobility of the factors of production as some economists believe essential.

In view of the declared relationship of the *Shifting and Incidence of Taxation* and recent economic theory and taxation discussions, the references to earlier literature are of particular interest. For example, far the most frequently cited author is Professor Seligman whose *Incidence of Taxation* was published originally in 1899 and slightly revised as recently as 1921. The publications of the National Tax Association and Commerce Clearing House, including the *Tax Magazine*, are practically ignored. No attention is given discussions in American official documents. There *is*, however, a wealth of reference to certain standard American, English, and continental authorities, ancient and modern.

As a whole the volume is a readable summary of incidence theory which will be decidedly useful to the mature college student for whom it is intended.

University of Kentucky JAMES W. MARTIN

[1] The reviewer believes many readers will fail to find a *demonstration*.

The Impact of Federal Taxes. By Roswell Magill. New York: Columbia University Press, 1943. Pp. ix, 218. $3.00.

In his preface the author states that this book is intended neither as a general legal treatise nor as a general work in public finance, but "to consider the tenets on which a tax system should be based, and some of the principal effects of the major federal imposts." To this end he makes some positive and perhaps some negative contributions.

Most of the text is devoted to an examination of certain provisions of the revenue acts, past and present, as they have been interpreted by the courts and as the author believes they influence behavior. Although the factual treatment is necessarily relatively brief, it appears to possess a high level of competence and to relate to matters of considerable pertinence. It seems, however, that the various "oughts" which are fairly liberally sprinkled throughout are bottomed on inadequate considerations of implications in terms of means and ends.

The final chapter offers some brief but provocative comments, in part factual and in part *ex cathedra* pronouncements, on federal tax administration relative to (a) collection procedure, (b) regulations and rulings, (c) personnel of the Bureau of Internal Revenue, (d) court procedure, and (e) an administrative code.

The first chapter presents in summary form Mr. Magill's views on a continuing federal tax program. The 1942 Revenue Act is evaluated in the light of three criteria, viz., simplicity and ease of administration, fiscal adequacy, and equity. For the future, modifications in the tax program should include (a) lower personal exemptions and higher rates on the lower brackets for personal income taxes, (b) the exemption of income from dividends from normal personal tax rates, (c) amendments in the provisions relative to excess profits taxes in the direction of lower and more equitable burdens on corporations, (d) several changes in estate and gift taxes, such as exemption of transfers between spouses, the substitution of inheritance for estate taxes, and closer integration of gift and inheritance taxes, and (e) retail sales taxes of 5 per cent or 10 per cent.

The reviewer offers no general disagreement with the position taken by Mr. Magill. But while there is abundant reason for subscribing to the thesis that the social scientist should consciously and meticulously implement his work to influence both ends and means in the world of affairs, there appears to be increasing need for scrupulous care in avoiding superficiality in the use of a concept like equity or justice.

Furman University A. G. GRIFFIN

The Theory of Incidence of Sales Taxation. By John F. Due. New York: King's Crown Press, 1942. Pp. xiii, 257. Paper, multilithed. $2.50.

By applying the concepts of monopolistic competition and Keynesian interest theory, Professor Due attempts to make more realistic and valid the theoretical analysis of the shifting and incidence of special sales taxes, general producers sales taxes, retail sales taxes, and general sales taxes. By the term "incidence" the author means "the extent to which real incomes of various groups are re-

duced as a result of the tax," or "readjustments in price resulting from changes in cost and demand produced by the tax." While explicitly admitting the existence of important expenditure effects, in general he simplifies his problem (and perhaps to many readers destroys the validity of any pronouncements) by assuming away these expenditure effects.

There appears to be nothing surprising in the results obtained. Many combinations of influences in the environment of the firm are discussed, with as many different types of behavior. Different degrees of freedom of entry, different production coefficients, different elasticities of demand, adjustments through time, and other pertinent factors are given their place in the analysis. The role of the pure scientist is rigorously followed throughout the study. Conclusions are not offered as broad generalities.

The book is difficult reading, not because of any mathematical treatment (no mathematical formulations are employed), but because of the swift succession of modifications in assumptions. The author deserves credit for an attack on a tremendously difficult problem, and despite the weaknesses of the tools at hand, this reviewer has seen no better results.

Furman University A. G. GRIFFIN

How Collective Bargaining Works. By H. A. Millis and others. New York: The Twentieth Century Fund, 1942. Pp. xxviii, 986. $4.00.

Books dealing with the labor movement in the United States have given far too little attention to the development of the techniques of collective bargaining in various industries. This timely book, written under the direction of Harry A. Millis by some of the leading experts in the field of industrial relations, deals in a thorough manner with that often neglected part of unionism. While the major emphasis is placed upon the development and operation of collective bargaining processes during the New Deal, the authors recognize the fact that in a number of important industries in the United States collective bargaining has long played an important part in employer-employee relations.

The book deals at length with the development and operation of collective bargaining in thirteen trades and industries and in the Appendices there is found a brief summary of similar developments in thirteen other fields. In selecting the industries to be studied, the Labor Committee of the Twentieth Century Fund endeavored to find industries that "would show collective bargaining in all of the various stages of youth and maturity." As the result of their selection, the authors have been able to show that in some industries there have existed favorable factors that led to an early acceptance of collective bargaining while in other industries numerous complicating factors have made the development of collective bargaining a slow and tedious process.

While almost every chapter is written by a different author, the careful planning of the Labor Committee of the Fund has saved this book from the weaknesses which frequently result from joint authorship. In general, each chapter follows the same outline and approach to the problems relating to each of the industries examined.

This book is not merely a detailed history of the development and operation of collective bargaining in the industries studied but the authors give critical judgments on the state of collective bargaining in each industry to the time of publication. While a new chapter in the history of collective bargaining is now being written as the result of the War, this book is by far the most complete and satisfactory treatment of collective bargaining in all of its phases up to Pearl Harbor.

It is explained in the Preface that, "On the basis of information in these pages, and such other knowledge as they may have, the members of the committee will prepare a report which will contain the committee's analysis of the problems of collective bargaining and a program of action to deal with them." Students of labor economics and those persons interested in planning for the postwar reconstruction period will anxiously await the appearance of this report.

University of Virginia GEORGE T. STARNES

Southern Workers Outside the Legislative Pale. By H. C. Nixon (Ed.). New York: American Labor Education Service, Inc., in cooperation with the Southern School for Workers, Inc., 1942. Pp. 35. $0.20.

This pamphlet serves as a reminder that freedom from want is not yet established for Southern workers and farmers. Mr. Nixon's remarks on the labor shortage are timely and their accuracy is evident to anyone who has recently studied the rural South. The farm labor shortage, he says, may be acute in the neighborhood of defense centers, but is not characteristic of districts in the

"back country [where] for lack of education, training, or experience, thousands upon thousands of rural Southerners are unprepared to avail themselves of opportunities to enter the skilled trades in the present emergency."

The section on "Race Differentials" by Dr. Charles S. Johnson, which gives valuable recent data on the inadequacy of educational, health, and occupational opportunities for Negroes, provides documentary support for the statement on man-power made by Mr. Nixon.

In an analysis of unemployment compensation in the South, E. J. Eberling, discusses the inadequacy of payments for total unemployment made by all Southern states. He cites also the narrow range of coverage imposed—by the states, by the original Act itself, and by the amendment passed by Congress in 1939, excluding workers employed in commercial agricultural processes. This section would have benefited from some analysis of the old age insurance program, the coverage of which is much broader. This reviewer's recent investigation indicates that many thousands of Southern workers eligible for old age insurance and unemployment compensation are not receiving *any* benefits because their employers have failed to make returns.

Professor Lois McDonald in "The Labor Scene" indicates that the Wagner Act and the Wage and Hour law have not been of great value to the South. Perhaps the Wagner Act has been of relatively minor aid to the South's wage earners, not only because of the opposition of employers, and the exemptions,

both of which are mentioned, but also because so many non-exempt Southern workers have yet to reach a level of earnings which would permit them to pay at least minimum dues to existing union organizations. Until such time, the value of the Wagner Act to the South may be limited. The Fair Labor Standards Act has been of key importance to the wage earners of this section.

An essay on the Poll Tax, fittingly, closes the pamphlet. In it Jennings Perry reminds us that the "lever of progress has become immobilized . . . by depriving the masses of the people of voice in Government" through loss of the franchise.

U. S. Department of Labor IRVING RICHTER

The International Economy. By John Parke Young. New York: The Ronald Press Co., 1942. Pp. xvi, 714. $4.50.

This very readable text is divided into five parts.

Part I, five chapters, sketches the history of international trade in general and of the United States in particular and concludes with chapters on raw materials, ocean shipping and trade routes.

Part II, consisting of thirteen chapters, develops the theory of international trade, concluding with four chapters on the history of trade and monetary theory.

Part III, six chapters, deals with the financing of foreign trade; Part IV, eleven chapters, with international economic policies; and Part V, four chapters, devotes two chapters to the course of international finance since 1918 and one each to the economy of England and France. Bibliography, classified according to subject matter, is at the end.

Parts II and III contain some of the best expository writing on their respective subjects it has been the reviewer's pleasure to read. Professor Young repeats the new shibboleth that "Whatever procedure or machinery is set up, the objective of any currency system must be the attainment of an adjustment of currency supply to currency demand which will promote continued maximum production, employment, and utilization of resources" (p. 254), whatever those ends may mean, but he does not pursue the point.

Later, (p. 336) when discussing the supply of money and the volume of business, is the statement, "Preferable . . . is an adjustment of the monetary supply with the object of attaining, in so far as possible, an optimum volume of business and production"—a more reasonable statement if equally amenable to individual interpretation. Comparative costs "either real costs or even monetary costs" are put aside. "Importers are not interested in the costs of goods, but in the prices they must pay."

Chapter XVIII, The History of International Monetary Theory is too condensed to be of much value to students untrained in monetary theory and it does not materially advance the argument. Why is the theory "international"? The chapter on maritime policy would have been more helpful if it had dealt with comparative maritime policy instead of exclusively with American policy. The chapters on English and French economy seem a little lonely. Why individual treatment for those two—especially France? Would not a treatment of Russia, Germany or Japan have been equally meaningful?

Such minor criticisms are not meant to detract from the merits of this excellent

text. It is balanced, thorough, yet brief, if the wide subject matter be considered. The style is good and very lucid, yet there is no "writing down" to the student.

Professor Young seems determined to create technological unemployment among teachers of foreign trade. As the professor said when his book, the result of years of labor, came from the press, "I've ruined my lecture course; there it is; go read it."

University of Kentucky RODMAN SULLIVAN

Economic Planning: Its Aims and Implications. By Claude David Baldwin. Urbana: University of Illinois Press, 1942. Pp. 188. $2.50.

The term "economic planning" has many implications and is too often loosely used. For purposes of this study, Mr. Baldwin has limited his definition of the term to four essentials: The positing of an objective (the end to be attained); the rational arrangement of economic resources so as to attain the projected goal; control over the resources subject to the plan; and, the substitution of collective (state) control over these resources for private individual decisions concerning their use.

The implications of such a definition of economic planning are: (1) State economic planning involves the abolition of private ownership in the means of production; and (2) State economic planning involves the direction of the economy by the state toward ends that may or may not be considered desirable by all of its people.

These implications give rise to a very interesting and well handled discussion of the place of ethics in economics, and to a consideration of various alternative ends which planning might be used to achieve. This treatment is justified on the premise that, without a discussion of the ends of planning, the discussion of means (of planning itself) loses much of its practical significance. Furthermore, Mr. Baldwin believes, and attempts to show, that there is nothing in the nature of the relationship between the means and any given end—whether authoritatively or democratically determined—which would preclude successful planning.

The major portion of the book is devoted to a detailed technical consideration of the place of economic theory (defined in the neoclassical sense as the quantitative analysis of the effects of a certain scale of values [ends] upon the means) in a planned economy, and to an analysis of the problems of rational economic calculation under a planned system. These matters are discussed under several headings: The Place of A Pricing Mechanism; The Organization of Production; and, Distribution of Income and Allocation of Labor.

The rapid extension of the idea of economic planning in recent years, and the particular emphasis presently being placed on the study of planning with reference to possible post-war uses, lend to all works on the subject at least a limited significance. Mr. Baldwin's contribution, however, merits attention for more reasons than these alone. He has apparently succeeded remarkably well in presenting a closely reasoned, well documented synthesis of major ideas in the

field of economic planning, and in setting forth the "aims and implications" of planning with admirable clarity.

The necessity of perusing the numerous and lengthy footnotes quite carefully in order to follow the author's chain of thought makes reading the book somewhat arduous at times, but does not detract from its value. An extensive bibliography is included.

University of North Carolina CLIFTON H. KREPS, JR.

The Standard of Living in 1860. By Edgar W. Martin. Chicago: The University of Chicago Press, 1942. Pp. x, 451. $4.50.

Economic history, unlike political history, cannot be written in terms of fixed dates. True, there are important inventions, like decisive battles or elections, which produce profound changes in social customs, but the changes are usually less abrupt and the people are less conscious of what is occurring. It is even difficult to determine in retrospect when the full impact of a new invention had occurred or a new pattern of behavior had crystallized into custom. While historians have succeeded in presenting panoramic pictures of society in certain periods, they have not attempted to do so as of a particular date. The author of this book has attempted to do just that in order to establish a base for measuring the rise in the American standard of living. He has selected 1860 as the year for his simultaneous snapshots of all phases of American life. This would seem to be a good year for the purpose, for the country had by then rounded out its continental boundaries, and its internal economy had not yet been disturbed by civil war.

Mr. Martin has been able, through patient and exhaustive searching, to get glimpses of the living standards of all elements of the population in all parts of the country—what they ate, what clothes they wore, the kinds of houses they lived in and how they were furnished, the types of amusements which they sought, the length of their working hours, and their incomes both in dollars and in purchasing power.

There are many surprises. In some respects the conditions of 1860 showed little advance over those of the colonial period; in other respects they have an air of modernity. The streets of the cities, if paved at all, were "poorly paved, obstructed, filthy and unsanitary, and overrun with animal scavengers." The source of communicable diseases was a complete mystery. Smallpox, scarlet fever, measles, diphtheria were recurring pestilences. Near the Gulf yellow fever was a constant menace. Severe epidemics of cholera spread across the country, and thousands died in the big cities. Crude attempts at fumigation and fasting and prayer were the best that could be done. Quacks and frauds preyed upon the ignorant masses. The beginning of antiseptic surgery was still in the future. Although the American people had, from colonial days, believed in education, the average schooling of the whole population was less than twenty-two months. The average working day, apart from farm labor, was something like eleven hours. Although the 10-hour day had become almost standard for skilled trades, at least in the East, New England's textile workers

worked eleven hours or more and in some of the "sweated" trades longer. Even some of the larger cities had no public water supply, and none had purification plants. Plank roads radiated from numerous cities; otherwise the country roads were sloughs of mud in wet weather and in summer inches deep in dust. Outside the cities there were almost no bridges over the rivers and, except where there were ferries, travelers had to ford them. These conditions seem almost medieval.

On the other hand, one is reminded that in 1860 there were 381 cities and towns supplied with gas. Factory-produced watches had been on the market seven years. The mass production of boots and shoes was well established. The western states already produced more flour and mill products than New England and the Middle states combined. Baseball was emerging as the national game. Dancing and card-playing were popular with all levels of society though condemned by certain church groups. Soda fountains were an accepted part of city life. Women complained of the servant problem, and rich families sought to escape from it by living in hotels and boarding houses. Food costs absorbed about the same share of the laboring man's income then as now, and a progressively smaller share from the middle and higher income groups. The wives of the well-to-do were criticized for spending an excessive amount on clothes, but visitors from abroad were impressed with the well-dressed appearance of working girls who wore the cheap imitations. Class distinctions were reflected most conspicuously in housing. It may thus be observed that in some respects the customs any practices of 1860 were much like those of the present.

By 1860 the relatively high productivity of the American workingman enabled him to satisfy more of his creature wants than could any of his European contemporaries. Yet hardly more than 5 per cent of his income was left after meeting the costs of food, clothing and shelter. Moreover, the excess goods were mostly those that could be produced in mass. The products of artistry and fine craftmanship were woefully lacking. The aspirations of the people were definitely materialistic. Wealth was sought both in order to satisfy physical comforts and to gain power and esteem. There was a lack of good taste. Luxury and display were taken for elegance. Even education seems to have been prized chiefly because it enabled the individual to "get ahead." It may be said that if the American culture is crude and materialistic it acquired those characteristics because of the drab hard life of the frontier. When the standard of living of 1943 is measured against that of 1860 one can see that time has added refinements, and no doubt will continue to do so.

One is amazed at the amount of work which the writing of this book must have involved. The author has obviously gathered and sifted a tremendous amount of data. He seems to have weighed conflicting data with unusual care. His book should be exceedingly valuable to historians because of the attention he has given to the living habits of the ordinary folk. How far he has succeeded in providing economists with a base from which to measure progress in elevating the standard of living is debatable. The diversity in the levels of living then

and now complicates any effort at measurement. Probably Mr. Martin has succeeded as well in providing a base as can be done. At any rate, he deserves credit for tackling a hard job and doing it well.

University of North Carolina PAUL W. WAGER

Economics of American Industry. By E. B. Alderfer and H. E. Michl. New York: McGraw-Hill, 1942. Pp. xv, 566. $4.00.

This book is intended to be an introductory survey of the principal manufacturing industries of the United States. At the Wharton School it is used in a course taken by two groups of students—those who intend to specialize in industry, for whom it serves as a preparation for the study of industrial management and relations, and those who take it on an elective basis to supplement their work in economic theory. The book is divided into nine parts, the first of which discusses the plan of study, the next seven parts treat the important American industries, carrying the reader from the raw materials to the factory rooms, the offices, and the market, with explanation of what takes place at each point and the influences that are in control. The treatment of each industry embraces, 1—The place and structure, 2—Technology, 3—Location factors, and 4—Competition. Part Nine consists of three chapters covering the Changing Pattern of historical development; Technology: the course it has taken and the problems it raises; and Competition, as it has been and as it may be.

The book is illustrated by 102 graphs, charts and diagrams, and by 73 photographs. The printing is excellent, only two typographical errors being apparent to the reviewer.

The analysis of the economic influences affecting each industry seemed, to the reviewer, to be well carried out in a clear, understandable manner, a great improvement on similar books that have appeared heretofore; but the description of processes leaves much to be desired. Whether this portion of the book could be remedied economically, that is whether a book that could be handled in one semester could be produced at a reasonable cost, the reviewer is not able to judge. But, since manufacturing employs more people and contributes a larger share to our national income than any other branch of economic activity, it would seem worthwhile that more people should have more definite information about it. The reviewer feels that many of the separate descriptions of industrial operations contained in this book are entirely inadequate to prepare the reader to discuss these operations understandingly. The descriptions often seem like skimming off two ounces of cream and leaving the rest of the quart of milk to sour. It is true that economic geographers are not supposed to go too deeply into the details of processes, but, as this is a book on manufacturing in which so many people are economically interested, it seems that students should obtain a clear understanding of the matter or let it alone. If we merely are to skim off the cream this book does it admirably, much better than those that have gone before. The student will learn about the raw materials and their sources, and the effects of economic influences and market reactions, but he will get his "A" without knowing very much about how the things are made.

Part Nine is well-written, Chapter 38 clearly bringing out the problems of technological progress. It left the reader wondering how long the decreasing number of workers can support the increasing number of idle during normal times; as the number of idle increases, what becomes of the market for the product; will the system complete the cycle and destroy itself, or is government control of industry, permanent or temporary, the solution?

Economics of American Industry is not a perfect book but it is a valuable addition to the field, a text well-adapted to the subject as it is now taught. It should be read by all the citizens and not merely by college students.

Duke University BEN F. LEMERT

Economic Problems of War and Its Aftermath. By Chester W. Wright (Ed.) and Others. Chicago: The University of Chicago Press, 1942. Pp. xi, 197. $2.00.

War Without Inflation. By George Katona. New York: Columbia University Press, 1942. Pp. x, 213. $2.50.

Wartime Price Control. By George P. Adams, Jr. Washington: American Council on Public Affairs, 1942. Pp. x, 153. $3.00.

The first named of these books contains a series of lectures given at the University of Chicago. The purpose of the lectures has been well accomplished and the general public has been supplied with an enlightening source of information which will enable it to understand some of the underlying economic and social problems of a modern total war. With this objective in mind, we recognize the merit of this publication by its high level of approach rather than by the search for new results. That popular discussion does not necessarily preclude profundity or originality and may even contain incentive sparks becomes apparent in the accent of many passages, especially in Frank H. Knight's inspiring contribution in which the destiny of individualistic society is considered.

A book on inflation appearing in the midst of the inflationary threats and dangers of the present war awakes psychological reactions. One expects discoveries or revelations. To influence peoples' attitudes through skilful propaganda is indeed the device which Mr. Katona recommends and explains in the preventive campaign against inflation. He refers to the activities of spending, saving, taxation, and administrative interference. The psychological instruments to be used in order to drive the changeable behaviour of individuals in directions which will offset or avoid inflationary tendencies originate in those well-known factors with which modern economic analysis is accustomed to operate. Katona cites these various "propensities," stresses their importance and effects, and puts them to work moulding an anti-inflationary attitude on the part of the public. These methods are already widely utilised in this country and clearly illustrate the simple outlines by which the writer offers the aid of the psychologist in the economic conduct of total war. The usefulness of a common sense treatise of this kind is not reduced by objections which could be raised against some points of minor importance to the issue as a whole.

Mr. Adams' book on Wartime Price Control advances considerably the intricate subject of price planning. He collects in a lucid survey the essential historical data from which the function of this relatively recent branch of war activity can be deduced. The ultimate aim of a war economy is to secure the largest output of war material by paying attractive prices. This may possibly impair supply and distribution of civilian consumers' goods and thereby give rise to an inflationary situation. To reach the first goal while minimising the detrimental effects on the standard of living, resulting from physical shortages, shifts in prices and price structure, is the twofold task of wartime price control. Since experience was lacking, it was rather an experimental and hazardous advance into unknown terrain, to establish organizations and shape adequate measures for a number of urgent cases. By elaborating elements which are characteristic of all of them, Mr. Adams prepares the fundamental analysis of significant economic war phenomena. While he clarifies the diversity of conditions which requires individual handling of various kinds of goods, he does not lose sight of the common ground. He emphasises the indispensable establishment of supplementary institutions after the first step has been taken and realizes the contours of a constructive system of measures. With these instruments the war economy can operate with greater reliability than hitherto and at the same time the traditional features of a free economy may be preserved—if this is necessary or desirable.

University of North Carolina F. GUTMANN

Flush Production, the Epic of Oil in the Gulf-Southwest. By Gerald Forbes. Norman, Oklahoma: University of Oklahoma Press, 1942. Pp. 253. $2.75.

Flush Production is a history of Southwestern petroleum from the drilling of the first well around 1880 to the present. This book deals with the discovery and development of the various pools, scientific advances, the natural gas industry, pipe line transportation, various social, economic and legal aspects of the growth of the petroleum industry, attempts at control by the state and federal governments, and regional folklore. The refining industry is given only cursory treatment.

The chapters dealing with discovery and development are very detailed. The inclusion of many statistics in the text is probably a fault of this portion of the book. The chapter on the natural gas industry is an exceptionally fine brief statement of the development, structure, and problems of that industry. One of the interesting features is chapter XII, which contains some of the legends and stories that have grown up in the southwestern oil region. Not the least important part of the book is the appendix containing a glossary of terms and a very complete bibliography of periodical material. The style is clear and matter-of-fact.

University of North Carolina HAROLD E. KLONTZ

STATE REPORTS

ALABAMA

The War continues to play an ever more dominant role in the economy of Alabama. Statistics just released by the Bureau of Business Research of the University of Alabama reveal what happened during the year of 1942.

Industrial activity was characterized by a high level of production in all branches. Building contracts awarded, the leader, with a present index number of 1086, totaled for the year over $200,000,000.00 and nearly 34,000,000 square feet of floor space. The increase in area was 85.2 per cent above 1941, 233.7 per cent above 1940 and 441.5 per cent above 1939. This expansion took place almost entirely in industiral and military establishments, since housing for only 17,000 war workers was constructed and practically no private residential or non-essential business construction was permitted. At the end of the summer it seemed that building was slackening and production leveling off, but late figures show that the last quarter of the year was by far the leading period. This means, of course, that plant capacities are being enlarged and that an even greater production may be recorded in the future.

Another jump in Alabama industry in 1942 was the increase in electric energy consumed for industrial purposes, which rose 59.5 per cent above 1941. Alabama consumption increased much more than the national or southeastern average. The leading factor in Alabama has been the use of electric power for war industries, particularly the aluminum plants and electric furnaces, which consume large amounts of power. The arguments heard a few years ago that TVA was building capacity in great excess of the then present and future demands for power now appear somewhat weird. Unless rains are plentiful this summer black-outs will become again necessary in this area. Cotton consumption in 1942 totaled 1,388,274 running bales, thus setting a new high record. However, the increase of 1942 over 1941 was not so steep as 1941 over 1940, or 1940 over 1939, which may indicate that production is approaching its effective limit until plant capacity is increased. Coke production increased perceptibly following an expansion in capacity undertaken over a year ago. Coal production also reached new heights during the year with a remarkably consistent level of output throughout the period. The Alabama coal index maintained a higher level than did the national average for every month of the year.

In agricultural production 1942 may be designated as a bountiful year. The index for cotton production was 81.1 as compared with 69.3 in 1941. This same index for the year 1937, the last pre-AAA year, was 143.1 and for 1932, the lowest previous year since the series was started, it was 83.1. Other crops measured by index numbers based upon 1935–39 average as 100 were: corn 101.2, oats 194.1, peanuts 168.4, potatoes 105.7, sweet potatoes 72.9, cattle 133.7, calves 110.5, hogs 88.7, and sheep 259.7. The shift away from cotton to a greater diversification of crops is perceptible from these figures although much yet remains to be done before a well-balanced agricultural economy is reached, for the quantities produced of each commodity are relatively small in comparison with cotton.

Business indices, in spite of rationing and restrictions, show a high level of activity throughout the year, and at the end of the year a sharp upward trend. These indices reflect of course not only a greater movement of goods but also higher prices. Bank debits for 1942 were 29 per cent over 1941 and 94 per cent over 1937. New deposits began the year larger than any period of the previous year and continued through 1942 with an increase each quarter over the preceding quarter. Although deposits in state-chartered banks rose $58,658,000.00, loans declined $4,305,000.00, indicating an extremely unbalanced situation for a normal period, but possibly indicating the growing capacity of our banks to underwrite the national war debt. Retail sales, measured in dollars, show 1942 to have been a very high year, and the phenomenal December volume suggests that inventories must have been badly depleted. Cost of living as computed by the U. S. Bureau of Labor Statistics stood in December at 120.8 in Birmingham and 123 in Mobile. Food costs experienced the sharpest rises, but all items were affected except rent which declined in both areas. Rising prices accompanied by excess deposits are already setting the stage for the coming inflation.

Employment in Alabama rose steadily during the year, from an index of 167.7 in January to 205.7 in December (using December, 1931 as a base of 100). Total wages likewise increased from a January index of 308.7 to a December high of 477. Average wages increased from $25.55 per week in January to $32.28 in December, as compared with $13.41 in December, 1931. Employment in manufacturing accounted for the greater part of the increase, although employment in retail trade increased from an index of 107.3 in January to 137.9 in December. Declines were registered in wholesale trade, public utilities, hotels, coal mining, and quarrying. The growing shortage of labor for war industries is being tackled with more energy and courage than any phase of the war economy yet witnessed. A War Manpower director has been placed in charge of the Mobile area and one is slated to take over in Birmingham. The Mobile director has proceeded to direct a more effective utilization of manpower in the various plants, to restrict pirating and absenteeism, to direct training for essential skills and professions under the Vocational Education and the E S M W T programs, and to sponsor the recruiting of labor from areas having a relative surplus. The U. S. Employment Service is also conducting periodic surveys in the various areas and carrying out recruiting programs for the war industries. Apparently no class or group is being overlooked. Negroes are being actively recruited from surplus areas for the Mobile shipbuilding industries. Women are being sent to various schools for specialized training, and one large company is preparing to train on its own time a large number of women college graduates for responsible positions in its industrial engineering and personnel department. The supply of young college men is almost entirely depleted: of the fifty-four March graduates of the School of Commerce and Business Administration of the University of Alabama, only two are available for industrial employment. The farms, the schools, the state and local governments, the domestic servant trades and the homes are being raided to supply the growing demand. Higher wages and free training are facilitating the exodus.

Alabama's industrial participation in the war effort ranks first in the South-

east, as indicated by figures just released by the War Production Board. Of the 882 manufacturing establishments which have the equipment and the ability to produce something for the war effort, 80 per cent or 707 now have war contracts. Of these, 162 are working on prime contracts, 442 on subcontracts, and 103 are engaged in maintenance work essential to the continued operation of the other plants. Of the 175 plants not now engaged in war contracts, 25 are expected to receive contracts soon. None of these figures include, however, prime supply contracts of less than $50,000.00, prime facility awards of less than $25,000.00, or contracts for food, of which there are a large number in the state. The Smaller War Plants Corporation is, we are told, expected to place many contracts in the state by breaking down the large contracts into small allotments for plants with limited facilities. This, when and if ever accomplished on a large scale, is one of the most constructive undertakings of the war production effort. Nothing will serve better to keep our economy expansive, dynamic and free than a large number of small thriving competitors.

University of Alabama E. H. ANDERSON

KENTUCKY

Kentuckians are often aggrieved because the state's primary system of highways is definitely not in the class of that of some of their neighboring states. Only in the western part of the state is there any considerable mileage of concrete pavement. In general, it may be said that it has been the policy of the state to connect all sizable communities with all-weather roads rather than to put the major portion of road funds into fine arterial highways crossing the state. Another feature of the policy has been freedom from bonded debt. In the face of rapidly declining road-fund revenues, the state is not seriously embarrassed. Repair work is all that will be attempted until conditions change for the better.

Commissioner of Revenue Ward Oates recently estimated that a voluntary system of liquor rationing, self-imposed by the industry in Kentucky, will cause a loss in consumption tax of from $600,000 to $900,000 a year. Last year the state realized $9,157,000 from the manufacture, sale, and consumption of whiskey, beer and wine. The consumption tax on whiskey of $1.20 has already shown a sharp decline in yield. The production tax of five cents a gallon ceased to yield revenue November 1, when Kentucky distilleries shifted entirely to the production of war alcohol. Total revenue from this source will decline one half in the opinion of the Commissioner.

The City of Cincinnati has been held liable by the Court of Appeals to income taxes of $30,000 a year as the recipient of $1,500,000 annual rental upon the railroad from Cincinnati to Chattanooga which the city owns and leases to the Cincinnati, New Orleans and Texas Pacific, a part of the Southern Railway system. Taxes, penalties, and interest back to 1936, when Kentucky's tax began, approximate $200,000. Cincinnati may appeal to the federal courts.

Preliminary assessment estimates from 112 of Kentucky's 120 counties show that county tax commissioners, on their own initiative, have assessed real estate 14 per cent higher than last year. The preliminary assessments are 6.5

per cent higher than final assessments of last year even after revisions, equalization and raises. This result could be held to justify the policy recently reported in this column of placing the responsibility of assessment on the county assessor, with the full knowledge that the county's finances depend upon it. It might be said that the Commissioner "read 'em the riot act" and got results.

The Court of Appeals has upheld the validity of the state's escheat act but held that the state must sue to obtain title. Abandoned bank deposits constitute the major portion of such property. Ten Louisville banks have moved to obtain an injunction to prohibit the enforcement of the provision requiring publication of unclaimed deposits.

By a recent decision of the Court of Appeals municipal housing commissions were declared tax free. The decision means that no taxes can be levied against the various housing commissions for value of real estate and other assets. The majority opinion held that such dwellings provided by the commissions for low income tenants are public property used for public purposes. Judge Tilford dissented, holding that such projects, however desirable, were taxable under the present constitution. This case is of far-reaching import in principle. How far can the hard-pressed municipal property owner be squeezed for the benefit of low income groups?

RODMAN SULLIVAN

LOUISIANA

Principal interest in the extraordinary session of the Louisiana legislature convened by Governor Sam H. Jones last August centered in the enactment of a War Emergency Sales Tax. The new law levies a 1 per cent tax on the sale "at retail, the use, consumption, distribution, and the storage to be used or consumed in this state on articles of tangible personal property as defined by the Act; and upon the leasing or renting of tangible personal property in this state and upon the furnishing, preparing, or serving of articles of tangible personal property." The tax is collected by the dealer from the purchaser or consumer without the use of tokens or tax receipts. Every person who sells or offers for sale at retail is covered by the law.

The new tax is in addition to and separate from the 2 per cent sales tax already imposed and collected in New Orleans. An integrated bracket of prices was worked out by the state and city governments as a basis for collecting the tax in that city. A statewide bracket was also developed for collections outside New Orleans. The use of price brackets in place of tokens constitutes the principal difference between the present tax and the sales tax enacted in 1938 and repealed in 1940.

The War Emergency Sales Tax does not apply to the following: stocks, bonds, notes, or other obligations or securities; livestock, poultry, or other farm products when sold directly from the farm by the producer; gasoline, steam, water (with a few minor exceptions), and natural gas; and articles on which a tax in imposed or collected under the provisions of the Soft Drink Tax Act.

The Bureau of Business Research of Louisiana State University published in

February a second annual revision of a bulletin on "The Income Tax under Federal and Louisiana Laws," by Dr. E. A. Saliers, Professor of Accounting and Head of the Accounting Department in the College of Commerce. The bulletin is designed to assist taxpayers by giving them a brief, but clear, picture of the present state and national income tax laws rather than a detailed set of instructions to be used in making out income tax returns. For the individual taxpayer, examples of the preparation of separate returns permitted in Louisiana and eight other community property states are given in the text. Simple illustrations of the returns to be made by corporations under both the state and federal laws are also presented.

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The year 1942 witnessed a notable increase in Louisiana business activity. During the year department store sales rose 9 per cent, bank debits 11 per cent, freight carloadings 26 per cent, and payrolls 60 per cent. The state activity index moved steadily upward throughout the year with the exception of August, when it receded slightly. At the end of the year the general level of business was 32 per cent higher than in December, 1941. In only a few fields was 1942 business below 1941 totals, and in those fields the war was clearly a depressing factor. Lowered building activity was reflected in the 30 per cent drop in urban mortgage loans, the 32 per cent decline in the dollar volume of building material sales, and the 65.2 per cent decrease in the value of building permits. Nevertheless, building contract awards, principally for construction outside city limits, were 32 per cent greater in 1942 than in 1941.

Retail furniture sales this past year were 13 per cent below 1941 in dollar volume. Principal factors in this decrease were: (1) the difficulties of replacing stocks due to the restrictions on appliance manufacture, the discontinuance of low-priced furniture, and the scarcity of labor in wooden furniture factories; (2) restrictions placed on instalment credit; (3) the exodus into the armed services of young men who otherwise would be getting married and buying furniture; and (4) the general unwillingness of buyers to spend money on furniture in view of increased taxes, war bond purchases, limited housing facilities in state defense areas, and a general feeling of uncertainty as to what the future will bring.

Another interesting development in the state business picture for 1942 was the shift in Louisiana advertising from newspapers to the radio. During the past twelve months newspaper advertising linage in this state was 9 per cent less and radio advertising revenue 15 per cent greater than in 1941. There were several reasons behind the change. Department stores and many other types of retail and commercial advertisers used radio advertising in 1942 to tie in their announcements with the many news broadcasts that were added to meet the demand for flash war news. National advertisers have likewise utilized local radio stations more extensively in 1942 than in 1941. Furthermore, some of the most important users of newspaper space, the manufacturers and distributors of automobiles, tires, gasoline, resorts, and travel services, have had to curtail their advertising programs.

The War Emergency Sales Tax, which went into effect September 1, yielded $2,643,660 during the first four months following its imposition. Pressure for the reenactment of the sales tax came in part from the expectation of a substantial decrease in other sources of state revenues, principally the gasoline tax. Gasoline rationing, however, was not extended to Louisiana until December 1, with the result that the state collected for the September-November period $5,621,671 from the gasoline tax, a total $423,690 greater than in the comparable months of 1941. For the first month of rationing gasoline tax collections amounted to $905,270, as against $1,743,567 last year, a decrease of $838,297. During this month, which is the peak month for retail sales, the War Emergency Sales Tax yielded $797,250.

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The quarterly retail food cost indexes prepared by the Bureau of Business Research of Louisiana State University have disclosed considerable differences in food price movements between cities in the state and between the state and national indexes. During the period from December, 1941 to December, 1942, retail food costs rose 16.7 per cent in Lake Charles, a city of 21,000, 20 per cent in New Orleans, and 24 per cent in Baton Rouge. The national index for 51 cities went up 17 per cent in the same period.

In Baton Rouge, where the twelve-months' advance was greatest, fruits and vegetable prices jumped 41 per cent, eggs 33 per cent, and fats and oils 30 per cent. The smallest increase was the 6 per cent rise in sugar prices. All of the Lake Charles price advances were more moderate, fats and oils rising only 11 per cent, eggs 18 per cent and fruits and vegetables 31.8 per cent. Meat prices in New Orleans, however, went up twice as rapidly (27 per cent) as in Lake Charles and slightly more than in Baton Rouge (23 per cent). The national increase in meat prices for 1942 was 20 per cent.

It is also significant that in the first six months of the year, when food prices were largely uncontrolled, (retail prices were generally frozen May 18 at their highest March levels) the advance was smaller in all three cities than in the last six months, when food prices were under ceilings. From quarter to quarter, however, there were important differences not only in the magnitude of the percentage changes, but also between the several cities. In Baton Rouge, for example, most of the increase came in the first and third quarters, while in Lake Charles the first and fourth quarters showed the greatest upward movement. All three cities had comparatively stable food prices from March through June. The national index, on the other hand, rose about equally in the first, second, and fourth quarters, and went up somewhat less in the June-September period.

Louisiana State University Robert W. French

MISSISSIPPI

One of the most difficult problems of retail stores is to meet ceiling prices in the face of rising costs. In England about one-third of the retail establishments have been forced to close. The evidence is that, except in cases of extremely

effective management, costs are certain to rise at least in proportion to selling prices, thereby reducing profit margins and sometimes turning profits into losses.

Slightly more than half of the retail stores of the nation do an annual business of less than $10,000. Estimates indicate that a large proportion, perhaps half, of the stores of this type may be forced to close because of goods shortages, set prices, rationing and other war restraints. It is particularly important that Mississippi business men realize this situation since a very large proportion of our retail establishments are of this type.

There is an even smaller type of store which is also prominent in Mississippi, that which is doing an annual business of less than $1,000. The stores of this type may find survival easier than those slightly larger if they continue to be able to replace a reasonably high percentage of their stocks. The reason, of course, is that the owners are seldom entirely dependent upon the store as a source of income. However, there is a strong possibility that the wholesalers will refuse to fill their orders because it would not be economic from their point of view to do so. The good will of the potential larger buyers is more important to wholesalers than the good will of the small buyers.

Most of the larger stores will manage to carry on in some manner, usually on a more or less restricted basis. However, in some instances, the larger stores may find their business actually increased because of the decreased competition of the smaller units.

University of Mississippi FRANCIS S. SCOTT

NORTH CAROLINA

The State of North Carolina, long known as an agricultural state, is making noticeable headway in its attempt to create a balanced economy. Statistics show that North Carolina is leading all other Southern states in balancing industry with agriculture; its leaders are constantly trying to get farmers to diversify crops and other farm activity so as to obtain year 'round income. Special emphasis is being placed on the development of poultry and livestock and truck crops and some progress is being made in this direction. In industry the number of wage earners compared to the total in the United States has risen from 1.7 per cent to 3.4 per cent since 1919. Wages have remained at approximately 39 per cent of value added by manufacture as compared with a national average of 40 per cent. Average annual wages have been about 35 per cent below the national average while value added has been about 31 per cent less. This low value-added relationship is due largely to the character of the industries located in the state and not to the difference in the efficiency of labor.

Economic activity in North Carolina on the whole has been very good during 1942. The statistics during the last quarter showed some soft spots but activity held up remarkably well considering the emphasis on war production, especially the heavy industries, along with shortages of material and man-power. Bank debits to individual accounts in the 9 largest cities declined sharply during the latter part of October and November, but recovered during December and were up approximately 25 per cent for the year as compared with 1941. Building

construction declined steadily during the fourth quarter in the 21 principal cities of North Carolina. This is a very good index to private construction. This decline, however, was offset by public construction which increased the total for the state about 24 per cent for the year. Labor incomes have increased appreciably during the year due mainly to more employment. Farm incomes have increased approximately 50 per cent. White-collar jobs have paid higher wages in some instances but on the whole, this class has had a decrease in its purchasing power.

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Industrial production has remained at a high level throughout the last quarter of the year, with some exceptions. Furniture manufacturing has had to make some adjustments, but is getting more sub-contract orders for airplane parts and other war products. Shortages of material and a large amount of special purpose equipment which is difficult to apply to war production provide the primary explanations for this condition. Electric power production is about 15 per cent above what it was in the last quarter of 1941. The cotton textile industry approached its maximum capacity during the second quarter of the year and has maintained this high level throughout the year. In 1942 cotton consumed was about 10 per cent greater than in 1941, reaching a total of 2,901,185 bales. Both rayon yarn and staple fiber shipments increased slightly during the last quarter and for the year as a whole. Tobacco manufacturing in 1942 topped 1941 in all types except smoking and chewing tobacco. The most important item, cigarettes, was 14 per cent above the 1941 production.

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The agricultural picture is clouded by a growing shortage of farm labor. However, the farmers were able to harvest most of the 1942 crop with only minor losses. Cash farm income for 1942 reached the high level of $389,200,000 for the first eleven months of 1942; a 49.6 per cent increase over 1941, which itself was a good year. The largest item was tobacco which brought the farmers approximately $217,000,000, at an average price of $39.49 per 100 pounds. The cotton crop is expected to yield over $70,000,000 at current prices. However, farmers seem reluctant to part with their cotton at present prices as indicated by the amount of loans from the Farm Credit Corporation. Final figures for poultry and livestock are not yet available but are expected to account for 25 or 30 per cent of the farm income. Truck crops accounted for approximately $11,000,000, a rise of 52 per cent over 1941.

There are several special items of interest which should be mentioned regarding agriculture. In addition to the expected labor shortage in 1943 there may be serious shortages in nitrogen for fertilizer, seeds, and feed crops. There were twelve new credit unions formed during 1942, bringing the total membership to 28,000. Total assets of these credit unions was $2,105,583. They made over 30,000 loans to farmers during 1942 amounting to approximately $3,000,000. Farmers have been helped considerably by the Milk Audit Law, strict enforce-

ment of weights and measures, and various grading programs carried on in the markets, notably in poultry, eggs, grains, soy beans, hay and other products.

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Retail and wholesale trade held up much better during 1942 than most prognosticators had anticipated. While some lines, notably hardware, automobiles, and auto parts, electrical appliances, and better grades of furniture declined sharply, the total dollar volume of trade actually increased throughout the year. Department store sales increased as did drugs, groceries, and shoes to mention only the more important items.

Among the wholesale items shoes, drugs, groceries, and tobacco products improved during the last quarter of 1942 and were substantially above sales for the same period of 1941. Sharpest declines were in paper products, electrical supplies, hardware and industrial supplies.

Both wholesale and retail stocks declined sharply during the last quarter in practically all items, including those which showed increases in volume of sales. This indicates that when the inventories are gone, the declines in sales may be expected to be very rapid.

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Industrial relations in North Carolina have been quite satisfactory during the past year. The State Conciliation Service reports very stable conditions during the first eleven months of 1942. Out of 133 disagreements between labor and management, 98 cases involving 47,878 workers were settled without work stoppages. There were 35 strikes involving 9,988 workers settled with only 62,038 man-days lost. Only three strikes involved war production. They were settled promptly and none caused a delay in deliveries of war goods.

The State Inspection Division inspected 5,052 business firms, found 9,407 violations of the State Labor Law most of which were technical in nature, 8 of which were prosecuted for flagrant violations of the law. There were 2,974 inspections made relative to the Federal Wages and Hours Law of which 2,561 were covered by the law, 879 of which were in full compliance, and 773 in violation of wage and overtime provisions. Restitution wage payments amounting to $415,000 were made to 12,794 workers.

Very little change occurred in employment and payrolls during the last quarter of the year. With approximately 1100 firms reporting (800 manufacturing and 300 non-manufacturing) to the State Department of Labor figures show that employment increased only 1.6 per cent and payrolls 7.1 per cent. Most of the latter is accounted for by a 3.6 per cent increase in the average hours worked per week.

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A summary of the revenue received by the State during last quarter discloses the following facts:

Revenue from Taxes was $10,667,546.52, from Gasoline tax $5,929,360.95, making a total of $16,596,907.47. The Division of Motor Vehicles received $3,026,994.69 bringing the grand total to $19,623,902.16.

During the first half of the fiscal year (July 1 to Dec. 31, 1942) as compared with the same period for 1941, general tax revenue increased $3,099,044.48 or 14.87 per cent. Revenue from the gasoline tax decreased $4,991,598.70 or 29.04 per cent. This gives a net decrease of $1,892,553.22 or 4.98 per cent. Net revenue of the Department of Motor Vehicles decreased $605,818.14 or 13.99 per cent. The legislature is in session at the time this report is being prepared and it is too early to know how the budget will be changed. Present indications are that there will be very little or no change in the State Income tax or Sales tax although bills have been presented regarding both. The only changes now expected are decreases in taxes on motion picture shows, bottlers, advertising corporations and other special items. One major item of expenditure that has a good chance of being passed is the 9 month-school bill which would add approximately $4,000,000 to the annual budget.

North Carolina State College T. W. Wood

VIRGINIA

Stimulated by war contracts, business activity in Virginia in 1942 made important gains over 1941. The volume of checks drawn on clearing house banks in seven Virginia cities reporting to the Federal Reserve Board in November, 1942, was 24 per cent greater than in November 1941; consumption of electrical energy increased 16 per cent for the same period; and employment in nonagricultural establishments increased during the year by 14 per cent.

Much of Virginia's business activity is based upon large contracts for ships and for naval and military establishments. A large portion of such expenditures are being concentrated in the Hampton Roads area which has become one of the most vital war activities centers in the United States. This is indicated by the fact that during the past year, the Newport News yard and the Norfolk Navy yard have together launched two battleships, two destroyers, a cruiser, an aircraft carrier, and, during the past three months, a score or more of tank-landing ships. In addition, repair work done at these yards during the year was of exceptional volume and importance.

The development of Hampton Roads as a great war activities center has created a serious housing problem in the area. In April, 1940 the population of the area was 343,423, while in December, 1942, the Virginia State Planning Board estimated that the population had increased to approximately 500,000. This unprecedented increase in population, together with the enormous increase in the number of military personnel in the area, has taxed the community facilities such as water-supply, sewerage, transportation, recreation, and highways.

University of Virginia George T. Starnes

PERSONNEL NOTES

P. F. Boyer, formerly associate professor of economics and business administration at Texas State College for Women, has been appointed associate professor of business administration at Louisiana State University.

Robert W. Bradbury, professor of business administration and head of the Division of Latin American Relations at Louisiana State University, has been granted a leave of absence for the duration of the war to accept an appointment in Panama as principal economic analyst in the Foreign Service Auxiliary of the State Department.

L. F. Brush, formerly instructor in accounting at Jefferson College, has been appointed instructor in accounting at Louisians State University.

Professor Clarence Heer of the Department of Economics and Commerce of the University of North Carolina has been appointed a director of the National Bureau of Economic Research to represent that institution in place of Professor Erich W. Zimmermann.

Paul T. Hendershot, instructor in business administration at Louisiana State University, has resigned to take a commission in the Navy.

Leo Herbert has been made an instructor in accounting at Louisiana State University.

Glenn L. Hodge, instructor in accounting, has been appointed assistant to the dean of the College of Commerce at Louisiana State University, replacing Burton R. Risinger, who resigned last spring to become purchasing agent of the University.

Dr. Sam M. Houston, who was appointed instructor in economics at Louisiana State University last September, has resigned to accept a position in the Dallas Office of the United States Department of Labor, Division of Industrial Statistics.

B. W. Kenyon, Jr. has been appointed Assistant in the Department of Agricultural Economics at North Carolina State College. He will be engaged in teaching and research in the field of farm credit and marketing.

Marshall D. Ketchum of the University of Kentucky will teach in the Summer Session of the School of Business Administration of the University of Chicago.

Paul Kohler, instructor in accounting at the Township High School and Junior College, Joliet, Illinois, has returned to Louisiana State University this fall as an instructor in accounting.

Sara Landau, formerly a member of the faculty of the John McNeese Junior College of Louisiana State University, has resigned to accept a position as assistant professor of economics at Alabama College.

N. Gunnar Lange, Associate Agricultural Economist at North Carolina State College, has resigned his position, effective January 15. It is Professor Lange's intention to return to Sweden as soon as possible. In the meantime, however, he has accepted a position with the Federal Administration, Washington, D. C.

Harry Aaron Lipson, Jr., instructor in Economics, University of Alabama, has been called into the armed service.

Professor H. L. McCracken of Louisiana State University is serving on Industry Committee No. 50 for the Sugar and Related Products Industry under the Wage and Hour Division of the United States Department of Labor. He is one of six members appointed for the public.

Mary McKinnon, formerly with the wholesale price division of the Bureau of Labor Statistics, has been appointed to the faculty of the College of Commerce at Louisiana State University.

Howard R. Smith, instructor in economics at Louisiana State University, resigned in February to take a position with the Federal Government in Washington, D. C.

Ralph B. Thompson, formerly with the Sales Department of Johns-Manville, has been appointed instructor in business administration at Louisiana State University.

Harry A. White, formerly Assistant Agricultural Economist of Clemson College, has been appointed as Assistant Agricultural Economist at North Carolina State College. Mr. White will be engaged in agricultural marketing research.

BOOKS RECEIVED

The Economics of War. (Revised Edition.) By Horst Mendershausen. New York: Prentice-Hall, Inc., 1943. Pp. xiv, 390. $3.35.

The Free Produce Movement: A Quaker Protest Against Slavery. By Ruth Ketring Nuermberger. Durham, N. C.: Duke University Press, 1942. Pp. ix, 147. $1.00.

The Foreign Trade of Latin America. By the U. S. Tariff Commission. Washington: Government Printing Office, 1942. Parts I, II, and III. Pp. respectively, vii, 99; Vol. 1, xi, 304: Vol. 2, xii, 326; vii, 253. (Report No. 146, Second Series.) $1.30.

World Economic Survey. By League of Nations. (Geneva, 1942.) Columbia University Press, 1942. Pp. 198. $2.50.

Technology and the Economics of Total War. By Lyman Chalkley. Washington: American Council on Public Affairs, 1943. Pp. 24. $0.25.

Our War Economy. By E. Stein, J. D. Magee, and W. J. Ronan. New York: Farrar and Rinehart, Inc., 1943. Pp. vii, 182. $1.00.

National Consciousness. By Walter Sulzbach. Washington: American Council on Public Affairs, 1943. Pp. x, 168. $3.00.

The Labor Relations Act in the Courts. By Herbert O. Eby. New York: Harper & Brothers, 1943. Pp. xvii, 250. $3.50.

Labor Policy and the Business Cycle. By Sidney C. Sufrin. Washington: American Council on Public Affairs, 1943. Pp. 52. $1.00.

Income Size Distributions in the United States—Part I. By the Conference on Research in Income and Wealth. New York: National Bureau of Economic Research, 1943. Pp. xxvi, 131. $1.00.

Fundamentals of Economics. By Paul F. Gemmill. New York: Harper & Brothers, 1943. Pp. ix, 395. $3.25.

Federal Tax Accounting. By J. F. Sherwood and C. R. Niswonger. Cincinnati: South-Western Publishing Company, 1943. Pp. iv, 507. $2.88.

The Economics of Competitive Bidding in the Sale of Securities. By John Frederick Weston. Chicago: The University of Chicago Press, 1943. Pp. ix, 51. $1.00.

Economic Analysis and Public Policy. By Mary J. Bowman and George L. Bach. New York: Prentice-Hall, Inc., 1943. Pp. xix, 935. $4.50.

Accounts Receivable Financing. By Raymond J. Saulnier and Neil H. Jacoby. New York: The National Bureau of Economic Research, 1943. Pp. xv, 154. $2.00.

Keynesian Economics. By Mabel F. Timlin. Toronto: The University of Toronto Press, 1942. Pp. ix, 198. $2.75.

Some Financial Trends of Commercial Banks of Rhode Island, 1915–1937. By Rev. Bernard Aloysius McLaughlin. Washington: The Catholic University of America Press, 1941. Pp. xi, 106. $1.50.

The Prospects for a Study of the Economic Effects of Payroll Taxes. By Carl Shoup. Washington: Committee on Social Security, 1941. Pp. v, 74. $0.50.

Dismissal Compensation and the War Economy. By Everett D. Hawkins. Washington: Committee on Social Security, 1942. Pp. vi, 81. $0.50.

Wartime Developments in Government-Employer-Worker Collaboration. By the International Labor Office. Montreal, 1941. Pp. xi, 152. $1.00.

Principles of Marketing. (Third Edition.) By Fred E. Clark and Carrie Patton Clark. New York: The Macmillan Company, 1942. Pp. xx, 828. $4.50.

Labor's Voice in the Cabinet. By John Lombardi. New York: Columbia University Press, 1942. Pp. 370. $4.00.

Bibliography of Economic Books and Pamphlets by Catholic Authors, 1891–1941. By Paul J. Fitzpatrick. Washington: The Catholic University of America Press, 1941. Pp. xi, 55. $0.50.

Business as a System of Power. By Robert A. Brady. New York: Columbia University Press, 1943. Pp. xviii, 320. $3.00.

Two Manuscripts: By Charles Davenant. Introduction by Abbot Payson Usher. Baltimore: Johns Hopkins, 1942. Pp. xi, 108. $1.75.

State Liquor Monopoly or Private Licensing? By Glenn D. Morrow and Orba F. Traylor. Frankfort, Kentucky: The Legislative Council of Kentucky, 1942. Pp. 80.

Commercial Policy in the Interwar Period: International Proposals and National Policies. Geneva: League of Nations, 1942. Pp. 164. $1.75.

Labor in Latin America. By Ernesto Galarza. Washington: American Council on Public Affairs, 1942. Pp. 16. $0.25.

The Economics of Price Determination. By C. Clive Saxton. London: Oxford University Press, 1942. Pp. viii, 187. $3.50.

Outlay and Income in the United States, 1921–1938. By Harold Barger. New York: National Bureau of Economic Research, 1942. Pp. xxvii, 391. $2.50.

Workers' Education. By Ernest E. Schwarztrauber. Madison: The University of Wisconsin Press, 1942. Pp. xii, 182. $1.00.

The Reciprocal Trade Agreements Program. By James Constantine Pearson. Washington: Murray & Heister, 1942. Pp. xiii, 328. $2.00.

Comparative Economic Systems. (Revised Edition.) By W. N. Loucks and J. W. Hoot. New York: Harper & Brothers, 1943. Pp. xiv, 918. $4.00.

The I. L. O. and Reconstruction. Montreal, 1941. Pp. 112. $0.50.

Business Research Projects. By Bureau of Foreign and Domestic Commerce, Department of Commerce. Washington, 1942. Pp. vi, 188.

Kentucky Manufacturing: An Initial Report. By W. Scott Hall. Commonwealth of Kentucky, Frankfort. Pp. 92.

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Applications for membership should be addressed to James E. Ward, Clemson Agricultural College, Clemson, South Carolina.

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